

**TOURNAMENT ELECTIONS WITH
ROUND-ROBIN PRIMARIES:
A SPORTS ANALOGY FOR ELECTORAL REFORM**

EDWARD B. FOLEY*

Round-robin voting uses ranked-choice ballots but differs from instant-runoff voting in how to calculate which candidates are most preferred by a majority of voters. Like a round-robin sports competition, round-robin voting determines how each candidate fares against every other candidate one-on-one, tallying the number of wins and losses for each candidate in these one-on-one matchups. If necessary to break a tie in these win-loss records, round-robin voting looks to the total number of votes cast for and against each candidate in all of the one-on-one matchups—just as round-robin sports tournaments look to an equivalent total point differential statistic to break ties. When used in a primary election as the method to identify the top two candidates deserving to compete head-to-head as finalists in the general election, comparable to the use of round-robin competition as the preliminary stage of a sports tournament, round-robin voting is the electoral system best able to implement the democratic idea of majority rule.

Introduction.....	1188
I. The Basics of Round-Robin Voting.....	1194
A. Simple, Four-Candidate Illustration of Round-Robin Voting	1196
B. Tiebreaker Five-Candidate Example	1201
II. Round-Robin Voting and the Maximization of Majority Rule	1205
III. Some Technical Details in the Implementation of TERRP.....	1212
A. How Round-Robin Voting Handles Incomplete Ballot Rankings	1213
B. The Number of Candidates in a Round-Robin Primary....	1220
C. Two Separate Round-Robin Primaries Instead of One? ...	1224
Conclusion	1227

* Ebersold Chair in Constitutional Law, The Ohio State University; Director, Election Law at Ohio State. Many thanks to the research assistants for this project: Luke Klage, Cam Wade, Jason Wilhelm, and Kiera Zacher. Many extra thanks to Gillian Thomson, Program Administrator of Election Law at Ohio State, for her tireless work on all aspects of this endeavor. I’m grateful, too, for comments received at the “Public Law in the States” conference, where the first draft of this Essay was presented, as well as for feedback from Steve Huefner, Mike Parsons, Rick Pildes, and Rob Richie. A fifteen-minute video explaining key points of this paper, with useful graphics, is available here: The Ohio State University Moritz College of Law, *Round Robin Voting*, YOUTUBE (June 30, 2021), <https://www.youtube.com/watch?v=TvvE-R55g8s> [<https://perma.cc/27NB-WH5Z>].

INTRODUCTION

Most Americans are familiar with round-robin competition, a type of tournament in which each competitor has a one-on-one match against every other competitor.¹ Round-robins are used in a wide variety of sporting events, including the preliminary rounds of World Cup soccer.² A useful example from American college football is the so-called Big 12 Conference (which currently has only ten teams): each team plays every other team in the conference during the regular season, making the regular season an extended round-robin tournament; the two teams with the best records from these round-robin matches then face off against each other in a final championship round in order to determine the conference's champion for the year.³

The same format that the Big 12 uses for football could be used for elections. The primary election could be a round-robin competition among all the candidates in the primary, resembling the regular season of Big 12 football, though the electoral competition would happen on a single ballot using voters' ranked preferences—and would not need to be an entire season of primaries, as in presidential elections. (Also, the date for this round-robin primary could be in September, much closer to the November general election than many states currently use for primaries.⁴) The November general election then could be, in effect, the championship round between the two candidates who performed best in the round-robin primary. This type of Tournament Election with a Round-Robin Primary, or TERRP for short, would be similar to the “top two” electoral system

1. Frank Harary & Leo Moser, *The Theory of Round Robin Tournaments*, 73 AM. MATHEMATICAL MONTHLY 231, 231 (1966).

2. See, e.g., WILLIAM D. BOWMAN, *THE WORLD CUP AS WORLD HISTORY* 90 (2019). Olympic soccer also uses a round-robin format for the first “group stage” of the competition. See FIFA, *REGULATIONS FOR THE OLYMPIC FOOTBALL TOURNAMENTS: GAMES OF THE XXXIII OLYMPIAD TOKYO 2020*, at 38, 41 (2019), <https://library.olympics.com/Default/doc/SYRACUSE/184867/regulations-for-the-olympic-football-tournaments-games-of-the-xxxii-olympiad-tokyo-2020-federation-i> [<https://perma.cc/KSC7-5ECM>]; see also Harary & Moser, *supra* note 1; Arvi Pakaslahti, *The Use of Head-to-Head Records for Breaking Ties in Round-Robin Soccer Contests*, 46 J. PHIL. SPORT 355 (2019) (explaining why total goal differential is an appropriate tiebreaker for round-robin soccer tournaments).

3. The Big 12 conference expects to have twelve teams again in 2025. See *Big 12 Announces 2021 Football Conference Schedule*, BIG12SPORTS.COM (Feb. 11, 2021, 12:00 PM), <https://big12sports.com/news/2021/2/10/big-12-announces-2021-football-conference-schedule.aspx> [<https://perma.cc/L9V5-SBGW>].

4. Currently, Massachusetts and other New England states hold September primaries. See *2022 State Primary Dates*, NAT'L CONF. OF ST. LEGISLATURES (Nov. 3, 2020), <https://www.ncsl.org/research/elections-and-campaigns/2020-state-primary-election-dates.aspx> [<https://perma.cc/92AL-USSG>]. States could schedule a round-robin primary with the objective of maximizing voter turnout in the primary. See Robert G. Boatright, Vincent G. Moscardelli & Clifford D. Vickery, *Primary Election Timing and Voter Turnout*, 19 ELECTION L.J. 472 (2020).

currently used in California,⁵ except that the round-robin primary would be a different—and better—way to identify the two strongest candidates who deserve to face off against each other in the November general election.⁶

California currently identifies its top two candidates only by asking primary voters who is the single candidate they most prefer and then calculating which two candidates receive the most votes.⁷ But this form of balloting measures only the extent to which primary candidates have enthusiastic support among voters.⁸ Crucially, it fails to measure the extent to which candidates engender significant opposition, or even indifference, across the entire electorate.⁹ Round-robin voting, by contrast, by comparing each candidate against every other, captures the extent to which voters disfavor as well as favor candidates relative to each other, thus

5. See Chenwei Zhang, *Towards a More Perfect Election: Improving the Top-Two Primary for Congressional and State Races*, 73 OHIO ST. L.J. 615, 627 (2012); see also LARRY N. GERSTON & TERRY CHRISTENSEN, CALIFORNIA GOVERNMENT AND POLITICS: A PRACTICAL APPROACH 20 (14th ed. 2018).

6. The first suggestion of a round-robin electoral system was made in the thirteenth century by Ramon Llull, although his work was lost to history until recently. See GEORGE G. SZPIRO, NUMBERS RULE: THE VEXING MATHEMATICS OF DEMOCRACY, FROM PLATO TO THE PRESENT 33–46 (2010); Josep M. Colomer, *Ramon Llull: From ‘Ars Electionis’ to Social Choice Theory*, 40 SOC. CHOICE & WELFARE 317 (2013). The idea of round-robin voting is also related to the concept of a “Condorcet winner”—a candidate who beats all others one-on-one—named after the eighteenth-century French theorist, the Marquis de Condorcet. See SZPIRO, *supra*, at 73–86; Amartya Sen, *Majority Decisions and Condorcet Winners*, 54 SOC. CHOICE & WELFARE 211, 211 (2020). But as developed here, round-robin voting does not require an undefeated Condorcet winner but instead determines the relative strength of candidates based on the round-robin competition in the same way that round-robin sports tournaments do. See *infra* Part I.

Something similar to the methodology of round-robin voting, as developed here, was suggested in passing by Partha Dasgupta and Eric Maskin, *The Fairest Vote of All*, SCI. AM., Mar. 2004, at 97: “If no one obtains a majority against all opponents, then among those candidates who defeat the most opponents in head-to-head comparisons, select as winner the one with the highest rank-order score.” The articulation of TERRP, with its explanation of round-robin voting, can be viewed as an effort to implement a workable and achievable form. See *id.* Moreover, an additional innovation of the TERRP system as a whole is to use round-robin voting as the first, or primary, stage of a two-stage system. Many nations, including France in its presidential elections, use two-stage electoral systems in which the second stage, as in California, is between two finalists. See 1958 CONST. tit. II, art. 7 (Fr.). But it would be a significant improvement for such two-stage systems to use round-robin voting for the first stage.

7. *Primary Elections in California*, CAL. SEC’Y OF STATE, <https://www.sos.ca.gov/elections/primary-elections-california> [<https://perma.cc/9EYG-CBT9>] (last visited Sept. 25, 2021).

8. See, e.g., LEE DRUTMAN, BREAKING THE TWO-PARTY DOOM LOOP: THE CASE FOR MULTIPARTY DEMOCRACY IN AMERICA 182 (2020) (“[I]n a two-round system, it’s quite possible for the two candidates with the most dedicated but not necessarily broadest support to advance to the final round . . .”).

9. On the importance of negative preferences to electoral system design, see Michael S. Kang, *Voting as Veto*, 108 MICH. L. REV. 1221 (2010).

providing a more complete assessment of which two candidates deserve to battle it out for the right to represent the electorate in office.¹⁰ Especially in an era when opposition to a candidate can be politically as important to voters as enthusiasm for a candidate—“Anybody But Clinton” or “Never Trump”¹¹—for an electoral system to measure only enthusiasm, and not opposition, as California’s “top two” system does, is to miss essential information that voters wish to convey about their preferences among candidates. Omitting these crucial negative preferences, moreover, causes electoral outcomes inconsistent with what a majority of voters actually want.¹²

Round-robin voting also can be compared to what is often called “ranked-choice voting” but what is more accurately identified by its less common label: “instant runoff voting” (IRV).¹³ In fact, round-robin voting can be conducted using exactly the same ranked-choice ballots that IRV uses. These ballots enable voters to rank candidates in order of preference: first choice, second choice, and so forth.¹⁴ These rankings permit a round-robin determination of the preference that every voter has between each pair of candidates. Thus, round-robin voting simply uses a different mathematical method than IRV to identify a winner from the same set of ranked-choice ballots.

The IRV math, like California’s system, privileges enthusiasm for first-choice preferences at the expense of antipathy toward candidates deemed dangerous, pernicious, or unqualified. If no candidate has a majority of first-choice votes, IRV eliminates the candidate with the fewest first-choice votes and then redistributes all the ballots that ranked the eliminated candidate first to whichever candidate is ranked second on each of these redistributed ballots.¹⁵ Given this redistribution, IRV then looks to see if any candidate now has a majority; if not, there is a second redistribution based on eliminating whichever remaining candidate has the

10. See *infra* Table 1.c.

11. A.W. Geiger, *For Many Voters, It’s Not Which Presidential Candidate They’re for but Which They’re Against*, PEW RSCH. CTR. (Sept. 2, 2016), <https://www.pewresearch.org/fact-tank/2016/09/02/for-many-voters-its-not-which-presidential-candidate-theyre-for-but-which-theyre-against/> [https://perma.cc/UL6H-GHUZ].

12. See Kang, *supra* note 9 (explaining why maximizing the electorate’s preferences requires consideration of negative preferences against candidates winning as well as positive preferences).

13. See *The Basics*, INSTANTRUNOFF.COM, <http://instantrunoff.com/instant-runoff-home/the-basics/> [https://perma.cc/ECF8-SNT8] (last visited Oct. 9, 2021); STEVEN MULROY, *RETHINKING U.S. ELECTION LAW: UNSKEWING THE SYSTEM*, ch. 7 (2018).

14. MULROY, *supra* note 13, at 119.

15. *Id.*

lowest number of votes.¹⁶ This process of elimination and redistribution continues until a candidate reaches a majority.¹⁷

Often, the IRV winner is the same candidate who leads the field in the round-robin competition's complete set of one-on-one comparisons between each pair of candidates—but this is not always the case.¹⁸ Consider, for example, a hypothetical contest between Donald Trump, Liz Cheney, and Kamala Harris, which could end up being the presidential race in 2024. Suppose, for sake of simplicity, that these are the electorate's preferences among the three candidates:

16. *Id.*

17. There is increased familiarity with the computational process of Instant Runoff Voting as a result of its use in New York City's 2021 mayoral primary election, the largest jurisdiction in the U.S. to employ ranked-choice ballots thus far. Sarah Almkhatar, Jazmine Hughes & Eden Weingart, *How Does Ranked-Choice Voting Work in New York?*, N.Y. TIMES (Apr. 22, 2021), <https://www.nytimes.com/interactive/2021/nyregion/ranked-choice-voting-nyc.html> [<https://perma.cc/Q9Y6-YMZX>]; Roque Ruiz, Juanje Gómez & Alexa Cores, *What Is Ranked Choice Voting? NYC's Ballot Explained, with Bagels*, WALL ST. J. (June 22, 2021, 12:11 PM), <https://www.wsj.com/articles/confused-by-nycs-ranked-choice-mayoral-primary-practice-with-bagels-11622631601> [<https://perma.cc/8DN5-TBTT>]. But that increased familiarity is not evenly spread across the United States. Michael Lewyn, *Two Cheers for Instant Runoff Voting*, 6 PHX. L. REV. 117, 132 (2012). Some reformers believe that it may be easier for voters to understand the math of IRV compared to round-robin voting, but that belief is not self-evident given *both* the complexity of IRV itself *and* public familiarity with round-robin competitions from sports. On this point, moreover, it is important to note that the system of round-robin voting as developed here, while related to "Condorcet-based" electoral systems, is *not* the same as those electoral systems that seek to identify a single best candidate who is equivalent to a "Condorcet winner" when none exists. *Cf.* Greg Dennis, *Why I Prefer IRV to Condorcet*, FAIR VOTE (Nov. 22, 2008), <http://archive3.fairvote.org/articles/why-i-prefer-irv-to-condorcet/> [<https://perma.cc/7GWY-YDFT>]. Additional empirical evidence on this issue concerning the relative public accessibility of IRV versus round-robin voting would be welcome.

18. See Michael Lewyn, *supra* note 17, at 122 & n.19 (discussing example of 2009 election for mayor of Burlington, Vermont). Because neither IRV nor round-robin voting has been widely used in the types of statewide or congressional elections most susceptible to the effects of partisan polarization—for example, U.S. Senate races—there does not exist clear empirical evidence on whether the choice between IRV and round-robin voting would make a significant practical difference in these elections given contemporary levels of polarization. This article hypothesizes scenarios designed to be as realistic as possible to consider this question, but ultimately what is needed is the use of best available social science techniques (including computer modeling and well-designed public opinion survey instruments) to substitute for the dearth of data from actual election results.

Table I. Hypothetical 2024 Presidential Election

% of electorate	1st choice	2nd choice	3rd choice
45	Trump	Cheney	Harris
10	Cheney	Trump	Harris
5	Cheney	Harris	Trump
40	Harris	Cheney	Trump

In this case, IRV will eliminate Cheney as the candidate with the fewest first-place votes; then, redistributing the ballots that ranked Cheney first, IRV would declare Trump the winner with 55%.

By contrast, the round-robin competition would show Cheney the top candidate. One-on-one against Trump, Cheney prevails 55% to 45%—because, with Harris not involved in this round-robin matchup, Cheney is preferred by all the voters who rank her first, 15% of the total, plus all the voters who rank Harris first but prefer Cheney to Trump, another 40%. One-on-one against Harris, Cheney prevails 60% to 40%—because, with Trump not a factor in this round-robin matchup, Cheney again is preferred by all the voters who rank her first, 15%, plus all the voters who rank Trump first but prefer Cheney to Harris. Cheney, in other words, may have the fewest number of voters who rank her first—she does not have as many enthusiastic followers as Trump or Harris—but she shows her strength as a candidate relative to the other two by being the second choice of 85% of the electorate. She does not generate the same degree of opposition that both Trump and Harris do. As a result, of the three candidates, she is the most majority-preferred overall. Round-robin analysis of the ranked-choice ballots demonstrates this, whereas IRV does not.¹⁹

Round-robin voting, like IRV, can be used in November general elections. Again, any election that uses ranked-choice ballots—like Maine

19. The same point can be made using recent polling data on Alaska's 2022 U.S. Senate race. Suzanne Downing, *New Democratic Poll Shows Republican Kelly Tshibaka Beating Murkowski and Gross in Ranked-Choice Voting Scenario*, MUST READ ALASKA (June 9, 2021), <https://mustreadalaska.com/new-democrat-poll-shows-republican-kelly-tshibaka-beating-murkowski-and-gross-in-ranked-choice-voting-scenario/> [https://perma.cc/32JR-A4EC]. Murkowski, in third place among first-choice preferences according to this poll, might not prevail under IRV. By contrast, compared to either the Trump-endorsed candidate, Kelly Tshibaka, or the Democrat, Al Gross, Murkowski might win both head-to-head matchups in a round-robin election.

Other polling, however, shows Murkowski in first place among first-choice preferences and prevailing under Instant Runoff Voting, and so this one specific poll is simply an illustration of how Murkowski might lose under IRV even though she is the candidate who would beat all others one-on-one. See Matt Buxton, *Poll: Murkowski Would Win Hypothetical Four-Way Race Under Ranked Voting*, MIDNIGHT SUN (Aug. 2, 2021), <https://midnightsunak.com/2021/08/02/poll-murkowski-would-win-hypothetical-four-way-race-under-ranked-voting/> [https://perma.cc/X63T-YFCZ].

and Alaska now do in their November general elections for congressional races²⁰—could identify the election’s winner based on round-robin analysis rather than IRV. But the argument presented here will be that round-robin voting is better employed at the primary stage of a two-stage system, like California’s, that leads to a November election between the top two candidates in the primary. In a democracy devoted to the basic principle of majority rule, the November election is best structured as a final round of competition between the two strongest competitors, with the majority of the electorate declaring a preference between the two after a vigorous one-on-one campaign in which each side offers its vision and its reasons for being the electorate’s choice.²¹ This point is especially true for statewide offices like governor.²² Yet if the November general election is to be limited to a choice between the two strongest candidates in this way, it is important that the method for identifying these two from the primary round of competition be the best available method. The argument here will be that round-robin voting is the best method because it identifies the two candidates most favored by a majority of voters. Thus, like Big 12 football, which identifies the two strongest teams after a season of round-robin competition so that these top two teams face off against each other in one final championship matchup, round-robin voting identifies the two candidates most deserving to prove in the general election campaign that they, rather than their opponent, are the majority choice of the electorate.

This Essay will proceed in three parts. First, it will set forth the basics of how round-robin voting operates to determine the relative strength, or standings, among all the candidates in the field—much like round-robin sports tournaments generate standings among all competitors. Second, the Essay will discuss why majority rule is a fundamental principle of democratic government and how round-robin voting best serves that principle.²³ Third, the Essay will consider some technical details involved in implementing round-robin voting as the primary stage of a two-stage electoral system. The upshot of this Essay should be that states considering electoral reform, including whether to adopt some form of ranked-choice voting, should seriously consider the round-robin alternative to IRV and

20. Ashley Houghton, *Alaska Joins Maine as Second State in Union to Pass Ranked Choice Voting*, FAIRVOTE (Nov. 17, 2020, 8:53 PM), https://www.fairvote.org/alaska_joins_maine_as_second_state_in_union_to_pass_ranked_choice_voting [https://perma.cc/Z742-GFWL].

21. Cf. AMARTYA SEN, *COLLECTIVE CHOICE AND SOCIAL WELFARE: AN EXPANDED EDITION* 416–17 (2017) (“[T]he purpose of run-offs includes giving the voters a chance to rethink on their ranking of the final two candidates, taking note of all considerations in a changed two-candidate final fight.”).

22. See *infra* note 56 and accompanying text.

23. As will become clear in that part, if it is not already, the choice of an electoral system inevitably involves some important normative judgments about what is important in a democracy and is not solely concerned with technical issues of electoral mathematics or the practical implementation of voting procedures. See *infra* Part II.

thus whether the best reform to adopt is a “top two” system similar to California’s except with a round-round primary. This reform we can call “tournament elections with round-robin primaries” (TERRP) because overall, the electoral system would resemble a two-stage tournament, like Big 12 football, with a round-robin as the first stage followed by a final one-on-one championship stage between the two strongest competitors as demonstrated in the round-robin.²⁴

I. THE BASICS OF ROUND-ROBIN VOTING

Round-robin competitions calculate the relative strength, or standings, among competitors based on the overall wins and losses in the series of one-on-one matchups.²⁵ For example, in a simple four-competitor round-robin, in which each competitor faces off against each of the three other competitors—for a total of six matchups in all (AvB, AvC, AvD, BvC, BvD, CvD)—the possible win-loss record of each competitor is 3-0, 2-1, 1-2, or 0-3. The order of competitors in the standings after all the round-robin matchups are complete is determined by each competitor’s overall win-loss record.²⁶

Obviously, it is impressive if a single competitor is undefeated after completion of all the round-robin matches. This is especially true the larger the number of competitors in the round-robin tournament. In a college football conference of ten teams, for example, if one team is undefeated after a round-robin season of playing once against each of the other nine teams, this undefeated record is considered noteworthy and obviously puts that team unrivaled at the top of the standings for the season. But it is not necessary to have an undefeated team to know which team clearly is in first place after the round-robin competition. If one team has an 8-1 record, while the next best record is 7-2 and the third best is 6-3, it is clear which team is in first place and which is in second at the end of the round-robin season.²⁷

24. A more theoretical exploration of tournaments as a way to implement majority rule, although not proposing any specific electoral system, is found in Scott Moser, *Majority Rule and Tournament Solutions*, in *HANDBOOK OF SOCIAL CHOICE AND VOTING* (Jac C. Heckelman & Nicholas R. Miller eds., 2015).

25. See Hrary & Moser, *supra* note 1, at 231.

26. Colomer, *supra* note 6, at 320.

27. In the history of electoral theory, there has been an emphasis on whether in a field of candidates there is one who would be undefeated in a series of head-to-head comparisons with all other candidates. This emphasis grew out of the work of the eighteenth-century French theorist Condorcet. SEN, *supra* note 21, at 2–3; DENNIS C. MUELLER, *PUBLIC CHOICE III*, at 129 (2002). But an undefeated Condorcet winner does not always exist, just as in sports, and it is possible simply to identify the candidate with the most head-to-head wins—as Llull did half a millennium before Condorcet. See Colomer, *supra* note 6, at 320.

Often it is necessary to have a secondary method of scoring in order to break ties among competitors with the same win-loss record upon completion of the round-robin. In soccer, for example, goals for and against each team—usually called “goal differential”—can serve as this kind of tiebreaker.²⁸ This is computed by totaling all the goals a team scores in all of its round-robin matches, and then subtracting all the goals scored against the team in all these matches.²⁹ This statistic is a way to measure the strength of each victory.³⁰ A 4-1 victory is obviously stronger than a 3-2 win. Thus, if two teams are tied in their win-loss record, the team with the higher goal differential is the stronger team given the greater strength of its victories compared to the other team with the same win-loss record. (Round-robin fencing tournaments employ a similar tiebreaker: “touches” or points for and against are a way to break ties between fencers who win and lose the same number of bouts in the round-robin competition; to win a bout by a score of 5-0 in touches is a much stronger victory than a bout won by a score of 5-4.³¹)

Round-robin voting operates in the same way and according to the same principles. Win-loss records can be computed for each of the candidates based on their one-on-one matchups against each other candidate. To break a tie between two candidates with the same win-loss record, one can compute vote differentials for each candidate: total number of votes for and votes against each candidate accumulated in all the round-robin matchups. A 60-40 victory in a one-on-one matchup against another candidate is a stronger win than a 55-45 victory. Thus, the accumulated vote differential for each candidate is a way to measure the strength of a candidate’s victories when candidates have the same number of victories in their round-robin competition against each other.³²

28. See *Goal Difference or Head to Head? How Every Major Football Competition Ranks Teams Level on Points*, GOAL (Oct. 1, 2021, 4:00 AM), <https://www.goal.com/en-us/news/goal-difference-or-head-to-head-how-every-major-football/1jax9vfriz1xs13jkdpf9qzhjo> [<https://perma.cc/UZE4-L9DX>]; KATE MIKOLEY, SOCCER: STATS, FACTS, AND FIGURES 24 (2018) (providing a basic explanation for youth enthusiasts).

29. *Goal Difference or Head to Head? How Every Major Football Competition Ranks Teams Level on Points*, *supra* note 28.

30. See, e.g., ROB VOLLMAN, TOM AWAD & IAIN FYFFE, STAT SHOT: THE ULTIMATE GUIDE TO HOCKEY ANALYTICS 245 (2016) (“Goals for and goals against are better predictors of future wins than wins themselves. . . . [W]inning a blowout is a far more convincing display of skill than winning a close game . . .”).

31. USA FENCING, FENCING RULES 94 (2020), https://cdn2.sportngin.com/attachments/document/f840-2248253/2020-08_USA_Fencing_Rules.pdf#_ga=2.263444490.745721942.1633842032-1294516741.1633842032 [<https://perma.cc/UE24-35KF>].

32. Colomer suggests the use of something like soccer’s “goal differential” to break ties in a round-robin electoral system based on Llull’s proposal. See Colomer, *supra* note 6, at 325–26.

A. Simple, Four-Candidate Illustration of Round-Robin Voting

Here is an example of a round-robin election with four candidates, two Republicans and two Democrats: A right-wing Populist (like Trump), a right-of-center Conservative (like Senators Rob Portman or Roy Blunt), a center-left Liberal (like President Joe Biden historically has been), and a further-left Progressive (like Bernie Sanders or Alexandria Ocasio-Cortez (AOC)).³³ The round-robin voting could be conducted using specially formulated “round-robin ballots” that ask voters to pick a winner in each of the six one-on-one matchups: Populist versus Conservative, Populist versus Liberal, Populist versus Progressive, Conservative versus Liberal, Conservative versus Progressive, and Liberal versus Progressive. But it is easier administratively to give voters ranked-choice ballots, enabling them to rank their preferences among these four candidates, and from these rankings the six round-robin matchups can be constructed.

To illustrate, suppose the preferences indicated in the ranked-choice ballots are as shown in Table 1.a (on the next page). This set of hypothetical preferences aims to reflect reasonably well the electorate in a somewhat right-of-center state—like Ohio is now³⁴—given the increasing polarization of American politics, where the two ends of the ideological spectrum have growing support at the expense of the center.³⁵ For sake of illustrative simplicity, these preferences assume that voters at either end of the ideological spectrum will be conventionally linear in how they rank the candidates. Thus, the 31% of voters who prefer the right-wing Populist the most like the left-wing Progressive the least, and in the middle, they prefer a Conservative to a Liberal. Conversely, the quarter of voters who favor the Progressive best disfavor the Populist the strongest, and their preference among the more moderate candidates is for the Liberal over the Conservative.³⁶

33. These four categories (Populist, Conservative, Liberal, and Progressive) are similar to George Packer’s four-part division of Americans (real, free, smart, and just) in his new book. See GEORGE PACKER, *LAST BEST HOPE: AMERICA IN CRISIS AND RENEWAL* 63–140 (2021).

34. See Dan Sewell & John Seewer, *No Longer Mirror of US, Ohio’s Electoral Bellwether Quiets*, AP NEWS (Nov. 14, 2020), <https://apnews.com/article/election-2020-joe-biden-donald-trump-elections-ohio-dab40fe319d7c13b17fe309caaf09a67>.

35. See *Political Polarization in the American Public*, PEW RSCH. CTR. (June 12, 2014), <https://www.pewresearch.org/politics/2014/06/12/political-polarization-in-the-american-public/> [<https://perma.cc/V6V6-3T62>].

36. The round-robin calculations would work in the same way if the preferences of some of these voters were not linear. The difference in the analysis would be that there would be a larger number of variations in the rankings of candidates among the electorate. Instead of just the six types of ballots in Table 1.a, there could be many more—with several unique sets of rankings appearing on only a small fraction of all the ballots.

Table 1.a. Hypothetical Ranked Preferences of All Voters in a Right-of-Center State

% of voters	1st choice	2nd choice	3rd choice	4th choice
31	Populist	Conservative	Liberal	Progressive
14	Conservative	Populist	Liberal	Progressive
10	Conservative	Liberal	Populist	Progressive
5	Liberal	Conservative	Progressive	Populist
15	Liberal	Progressive	Conservative	Populist
25	Progressive	Liberal	Conservative	Populist

Voters with more centrist preferences as their first choice are more complicated. Many of them will be loyal to political party affiliation. Thus, a larger portion of voters (14% of the whole electorate) who prefer the Conservative above all others pick the Populist as their second choice, above the Liberal and with the Progressive last. Others who favor the Conservative the most (10% of the total) are willing to cross party lines to favor the Liberal over the Populist before listing the Progressive last. In the 2020 election, this cohort of voters was dubbed “Biden Republicans.”³⁷

Something similar happens on the opposite side of the aisle. More voters liking the Liberal the best (15% of the total) will prefer the Progressive as their second choice before ranking the Conservative above the Populist. But a small sliver of voters (5% overall) who want the Liberal to win will choose the Conservative above the Progressive, whom they view as too far left, while they, too, will rank the Populist last.

From this set of preferences, it is possible to construct six round-robin matchups, as shown in Table 1.b (on the next page). The Conservative trounces the Populist, 69% to 31%, by being ranked above the Populist on all the ballots except for the 31% of voters who rank the Populist first. The Liberal has a narrower victory over the Populist, 55% to 45%, because in this head-to-head matchup the Populist picks up the cohort of voters, 14% of the total, who prefer the Conservative the most but still favor the Populist over the Liberal. The Populist, however, beats the Progressive head-to-head, 55% to 45%, because all the right-of-center voters prefer the Populist to the Progressive, even though a decisive chunk of them (10% of the electorate) would have preferred the Liberal to the Populist. (To complete Table 1.b, similar tallies can be calculated for each one-on-one matchup.)

37. See Zach Stanton, *The Rise of the Biden Republicans*, POLITICO (Mar. 4, 2021, 7:55 PM), <https://www.politico.com/news/magazine/2021/03/04/reagan-democrats-biden-republicans-politics-stan-greenberg-473330> [<https://perma.cc/4CYA-GP5L>].

Table 1.b. Head-to-Head Results from Ranked Preferences in Table 1.a

Round-Robin Matchup	Winner	W %	Loser	L %	Win Margin
Populist v. Conservative	Conservative	69	Populist	31	38
Populist v. Liberal	Liberal	55	Populist	45	10
Populist v. Progressive	Populist	55	Progressive	45	10
Conservative v. Liberal	Conservative	55	Liberal	45	10
Conservative v. Progressive	Conservative	60	Progressive	40	20
Liberal v. Progressive	Liberal	75	Progressive	25	50

Based on all six round-robin matchups, one can then generate standings that list the candidates in order of strength based first on their numbers of wins and losses and, if necessary to break a tie among candidates with the same win-loss record, their total vote differentials, as shown in Table 1.c.

Table 1.c. Standings from Head-to-Head Matchups in Table 1.b

Candidate	W	L	Total Votes For	Total Votes Against	Total Vote Diff	Total W/L Margins
Conserv	3	0	184	116	+68	+38+10+20 = +68
Liberal	2	1	175	125	+50	+10-10+50 = +50
Populist	1	2	131	169	-38	-38-10+10 = -38
Progressive	0	3	110	190	-80	-10-20-50 = -80

Note abbreviations: "Diff" for Differential, and "Conserv" for Conservative

In this example, a tiebreaker is not needed because the Conservative is in sole possession of first place with three head-to-head wins and no losses, while the Liberal is alone in second place with two head-to-head wins and one loss. With these numbers, one could declare the Conservative to be the clear round-robin winner and base the election solely on that result. But not every round-robin election will have such a decisive result. In any event, the goal is to identify the two candidates most deserving to compete one-on-one on the November election ballot so that after the fall campaign between these two, the November winner is entitled to hold office as the candidate most preferred by a majority of voters. Identifying the Conservative and the Liberal as the top two candidates, because they

are more often preferred by a majority of voters when each candidate is compared one-on-one against every other candidate, positions the fall campaign (and thus the November election) to best determine which candidate most represents the majority of the electorate's choice as to who should hold the office in contention.

What is especially striking about this example, moreover, is that while round-robin voting shows Conservative and Liberal to clearly be the top two competitors, with Populist and Progressive distinctly inferior as measured by either their win-loss records or even the backup "vote differential" statistic, the IRV method of identifying a winner from ranked-choice ballots would have the Populist defeating the Progressive in the final round of its instant-runoff calculations. Given the voter preferences indicated in Table 1.a, IRV would eliminate the Liberal candidate first because the Liberal has the fewest first-choice votes (20%). With the Liberal eliminated, the ballots ranking the Liberal first would be reallocated to the candidates ranked second on those ballots: the Progressive would pick up three-quarters of these reallocated ballots (15% of all ballots cast), while the Conservative would pick up one-quarter (5% overall). After this redistribution, the Conservative would be in last place with 29%, trailing Progressive's 40% and just behind Populist's 31%. IRV would thus next eliminate Conservative and reallocate ballots again. Populist would pick up most of these ballots and Progressive just a sliver—so that, after this second round of reallocation, Populist would defeat Progressive 55% to 45%.

California's current "top two" system would also identify Populist and Progressive as the two candidates to put on the general election ballot rather than Conservative and Liberal—exactly opposite to round-robin voting. California's current system does this because Populist and Progressive are the two candidates with the most first-choice votes, 31% and 25%, respectively. But this superiority in first-choice votes does not make these candidates the strongest overall. On the contrary, these first-choice votes indicate only the enthusiasm that some voters have for these two candidates. They do not show the degrees of antipathy that other voters have for these same candidates. When all the relative preferences of voters are taken into account, as round-robin voting does, so that a voter's desire that a particular candidate be defeated counts for as much as a voter's desire that a particular candidate prevail, then it becomes clear that the Conservative and Liberal candidates are actually more favored by a majority of voters in this electorate than the Populist and Progressive competitors. Many voters clearly fear the consequences if the Populist or Progressive were to win, and these preferences that other candidates defeat these divisive opponents need to be factored into the electoral calculations equally with the preferences of other voters in favor of these controversial candidates.

The backup statistic of “total vote differential” is especially useful for showing how unpopular, as well as popular, each candidate is relative to the rest of the field. In this example, the Populist and Progressive candidates have negative “total vote differential” scores, the Progressive especially so: -38 and -80, respectively. These negative scores contrast sharply with the positive “total vote differential” scores for both the Conservative and Liberal candidates: +68 and +50, respectively.

The reason why the total vote differential scores for both the Populist and Progressive are negative is because so many voters disfavor them when compared head-to-head against the other candidates. The Populist has a total number of 169 negative votes accumulated from all of the one-on-one matchups against the other candidates (based on the rankings on all the ballots) compared to only 131 positive votes (where the Populist is preferred to another candidate).³⁸ The Progressive fares even worse given all of the preferences of the whole electorate: the Progressive has a total of 190 negative votes accumulated from all the one-on-one matchups against the other candidates, while receiving only 110 positive votes in these same matchups. In this way, the total voter differentials for these two candidates show how strongly the electorate as a whole disfavors these candidates compared to the two others—thereby confirming that the November choice should be between the two more-preferred candidates, the Conservative and the Liberal, not between the two more-disfavored ones.³⁹

38. These total positive and negative votes, used to calculate the total vote differential statistic, can be expressed either in absolute number of ballots in which one candidate is ranked above or below another or instead as a percentage of all cast ballots that prefer one candidate to another. If percentages are used, then the totals for all round-robin matches will sum the percentages of each. For example, Conservative’s positive votes in the three round-robin matches are 69%, 55%, and 60%, for a total positive score of 184 (which could be expressed as an average percentage of 61.33%).

39. The total goal differential statistic is a version of a measure based on ranked-choice ballots known in the political science literature as the Borda score. See Robert LeGrand, *Description of Ranked-Ballot Voting Methods*, ANGELO ST. UNIV., <https://www.cs.angelo.edu/~rlegrand/rbvote/desc.html> [https://perma.cc/Z2LM-6WRT] (last visited Oct. 10, 2021). The Borda score is named after Jean-Charles de Borda, who, like Condorcet, was an eighteenth-century French theorist. See SZPIRO, *supra* note 6, at 60–68. Recent theoretical work suggests that the Borda score is the best way to measure the relative popularity among voters of three or more candidates. See E. Maskin, *Arrow’s Theorem, May’s Axioms, and Borda’s Rule* (June 2020) (unpublished manuscript) (on file with Harvard University); E. Maskin, *A Modified Version of Arrow’s IIA Condition*, 54 SOC. CHOICE & WELFARE 203 (2020). The TERRP system developed here, however, uses the total vote differential statistic as a secondary measure to break ties in keeping with the primacy of the wins-losses statistic to determine standings among competitors in round-robin tournaments. It would be too confusing for the public, in building an electoral system on the analogy to round-robin sports tournaments, to make the total vote differential statistic the sole basis for determining the standings of the candidates after the round-robin voting. Moreover, because TERRP uses round-robin voting in the primary rather than general election in order to identify the two strongest candidates most deserving to compete

B. Tiebreaker Five-Candidate Example

Table 2.a, on the next page, presents a five-candidate variation on the initial four-candidate example in order to illustrate how the total vote differential score is used to break ties in round-robin voting. The fifth hypothetical candidate is an Opportunist: a Republican who in the current political environment is trying to find a position (or “lane” in the lingo of contemporary primary-speak) between the insurgent Populist and traditional Conservative wings of the GOP. In this example, the Opportunist is not especially successful, garnering only 10% of first-choice votes within the whole electorate.⁴⁰ But the Opportunist is enough of a factor to cause a three-way tie for second place in the number of wins and losses that each candidate has in their round-robin matches.

We can see this tie by first constructing the head-to-head matches from the ranked-choice ballots (as we did in our initial four-candidate example). In this case, because there are five candidates, there is a total of ten one-on-one matches, as shown in Table 2.b (also on the next page).

in the November general election, it is highly likely that the candidate with the highest vote differential statistic will be one of these two finalists even when that candidate does not have the single best win-loss record. Indeed, the fact that there are these two different ways to measure the strength of candidates in round-robin competition—(1) number of wins and losses in the round-robin matches and (2) total vote differential in all round-robin matches—provides a strong reason to use the round-robin competition as the first phase of the overall electoral tournament, rather than as the final phase. As with sports that use round-robins solely for a preliminary stage of competition to identify the strongest competitors deserving to compete again in a final stage of the overall tournament, the TERRP system is based on the premise that it is important that the two strongest candidates identified in the round-robin primary compete again, head-to-head, in the final general election so that the electorate as a whole has another opportunity to express a majority preference between these two strongest competitors.

40. In this example, the Opportunist is also closer to the Populist than the Conservative insofar as the voters who like the Opportunist the best rank the Populist as their second choice. It would be possible to construct alternative scenarios in which the Opportunist was positioned more toward the Conservative.

*Table 2.a. Five-Candidate Variation on Ranked Preferences
in Right-of-Center State*

% of voters	1st choice	2nd choice	3rd choice	4th choice	5th choice
30	Populist	Opportun	Conserv	Liberal	Prog
10	Opportun	Populist	Conserv	Liberal	Prog
5	Conserv	Opportun	Populist	Liberal	Prog
4	Conserv	Populist	Opportun	Liberal	Prog
7	Conserv	Opportun	Liberal	Populist	Prog
4	Conserv	Liberal	Opportun	Populist	Prog
3	Liberal	Conserv	Prog	Opportun	Populist
6	Liberal	Prog	Conserv	Opportun	Populist
6	Liberal	Prog	Conserv	Populist	Opportun
13	Prog	Liberal	Conserv	Opportun	Populist
12	Prog	Liberal	Conserv	Populist	Opportun

Note abbreviations: "Opportun" for Opportunist, "Conserv" for Conservative, and "Prog" for Progressive

*Table 2.b. Head-to-Head Results from Five-Candidate Ranked
Preferences in Table 2.a*

Round-Robin Matchup	Winner	W %	Loser	L %	Win Margin
Populist v. Conservative	Conservative	60	Populist	40	20
Populist v. Liberal	Liberal	51	Populist	49	2
Populist v. Progressive	Populist	60	Progressive	40	20
Conservative v. Liberal	Conservative	60	Liberal	40	20
Conservative v. Progressive	Conservative	63	Progressive	37	26
Liberal v. Progressive	Liberal	75	Progressive	25	50
Opportunist v. Populist	Populist	52	Opportunist	48	4
Opportunist v. Conservative	Conservative	60	Opportunist	40	20
Opportunist v. Liberal	Opportunist	56	Liberal	44	12
Opportunist v. Progressive	Opportunist	60	Progressive	40	20

In Table 2.b, we see that the Conservative wins all four head-to-head matches against the other candidates for a clear first place—as reflected in the Table 2.c standings (below) derived from all ten round-robin matches. Table 2.b also shows, however, that three candidates each win two of their four head-to-head matches against the other candidates. Liberal defeats both Populist and Progressive head-to-head, but not Conservative or Opportunist. Opportunist defeats Liberal and Progressive one-on-one, but not Conservative or Populist. Populist defeats Progressive and Opportunist, but neither Conservative nor Liberal. Thus, there is a three-way tie for second place, based on wins and losses, between Liberal, Opportunist, and Populist, as indicated in the Table 2.c standings.

Table 2.c. Standings from Head-to-Head Matchups in Table 2.b

Candidate	W	L	Total Votes For	Total Votes Against	Total Vote Diff	Total W/L Margins
Conserv	4	0	243	157	86	+20+20+26+20= 86
Liberal	2	2	210	190	20	+2-20+50-12= 20
Opportun	2	2	204	196	8	-4-20+12+20= 8
Populist	2	2	201	199	2	-20-2+20+4= 2
Progressive	0	4	142	258	-116	-20-26-50-20= -116

Note abbreviations: “Diff” for Differential, “Conserv” for Conservative, and “Opportun” for Opportunist

If round-robin voting were used to identify a single winner of the election, there would be no need to worry about this tie for second place. Conservative would be the clear sole winner, undefeated in all round-robin matches. But because the TERRP system uses round-robin voting in the primary to identify the two strongest candidates deserving to compete one-on-one in the November general election, it is necessary to break the three-way tie for second place.

The total vote differential statistic breaks this tie, finding the strongest of these three candidates as measured by the relative strength of their victories (and defeats) in terms of the degree to which a majority of voters supported (or opposed) them when compared to each other candidate. Of these three candidates, the Liberal has the highest total vote differential. From all four head-to-head matches, the Liberal was favored over opponents by a total of 210 votes and was disfavored relative to opponents by a total of only 190 votes. By contrast, Opportunist’s overall score was 204 favored and 196 disfavored, for a net of just 8. Populist’s net favorability was even smaller: only 2, based on a total positive score of 201 and a total negative score of 199. Given these numbers, Liberal is the candidate most deserving to compete against Conservative in the general

election to finally determine which candidate is most preferred by a majority of the electorate.⁴¹

The same total vote differentials for each candidate can be calculated in a slightly different way, which also shows the relative strength of the candidate with the highest total vote differential. Each round-robin match produces a win, or loss, margin for that match. Some of these win margins are narrow squeakers, like Liberal's 51% to 49% win over Populist. But others are blowout landslides, like Liberal's 75% to 25% rout of Progressive. A candidate's aggregate win-loss margin from all of the candidate's round-robin matches is arithmetically identical to the candidate's total vote differential. Seeing this statistic as summing the strength of the candidate's head-to-head victories minus the strength of the candidate's head-to-head defeats is a way to confirm that this total vote differential statistic is a valid metric to measure how favored or disfavored the candidate is, when compared against all others, by the entire electorate. In our example, Liberal is the strongest competitor among the three candidates tied for second, with relatively more convincing wins combined with relatively narrower defeats overall. Thus, once again, Liberal, rather than Opportunist or Populist, is the one most deserving to challenge Conservative in the November general election.⁴²

In this way, round-robin voting is able to identify the two strongest candidates in a multicandidate field. Either by the number of wins and losses in the head-to-head matches or by the tiebreaking total vote

41. It has been suggested that another way to break ties among candidates who are equal in their win-loss records would be to use the victories in the specific round-robin matches between the tied candidates. (Some sports competitions use that form of a tiebreaker.) See generally Pakaslahti, *supra* note 2. But Table 2.b shows that this proposed alternative tiebreaker would not work in this example. In the three-way tie among Liberal, Opportunist, and Populist, each had one victory in their round-robin matches against the other two candidates: Liberal beat Populist, Populist beat Opportunist, and Opportunist beat Liberal. Thus, the vote differential statistic is necessary to break this three-way tie. One could consider using the vote differential statistic as a tertiary tiebreaker after a secondary statistic—like victories in specific round-robin matches between tied candidates—failed to break a tie. But that additional element of complexity in an electoral system is undesirable: an electoral system should be as easy as possible for the public to understand. The two-element system of round-robin voting serves this purpose. The public can understand the primary statistic of wins and losses, as well as the need to break potential ties based on total votes for and against each candidate from all round-robin matches. One form of tiebreaker is enough, and the total vote differential statistic is the best form of tiebreaker because (in addition to always being decisive) it precisely captures each candidate's overall degree of majority support within the electorate and thus is normatively matched to the goals of the electoral system.

42. As with our initial four-candidate example, this five-candidate variation shows the superiority of round-robin voting over either IRV and California's current "top two" system, both of which incorrectly view Populist and Progressive as the two strongest candidates in the field. These other systems make this error because they both privilege first-choice votes, whereas round-robin voting gives equal consideration to all of each voter's preferences. See *supra* notes 9–15 and accompanying text.

differential statistic, round-robin voting will pick the two best candidates to compete in the fall campaign. Using round-robin voting in a top-two primary is thus the electoral method most conducive to producing a final winner who most represents the majority choice of the whole electorate.⁴³ To appreciate this fundamental point more fully, it is worth considering the very concept of majority rule and how best to implement it.

II. ROUND-ROBIN VOTING AND THE MAXIMIZATION OF MAJORITY RULE

Political scientists have long known that majority rule is the voting procedure most consistent with the fundamental principle of equal voting rights when voters are choosing between two alternatives.⁴⁴ Formalized

43. Some have suggested the Coombs method, a variation of IRV, as worthy of consideration. See Bernard Grofman & Scott L. Feld, *If You Like the Alternative Vote (A.K.A. the Instant Runoff), Then You Ought to Know About the Coombs Rule*, 23 ELECTORAL STUD. 641 (2004). Rather than eliminating the candidate with the fewest first-choice votes, as IRV does, the Coombs method eliminates the candidate with the most last-placed votes. *Id.* at 644. The Coombs method is thus a way to give weight to the negative preferences of voters—their desire above all that a particular candidate be defeated. But just as IRV privileges first-choice preferences relative to the full range of preferences, the Coombs method privileges last-choice preferences relative to the full range. See *id.* at 649–51. This can lead to the anomaly that a candidate who defeats all others head-to-head, and thus is majority-preferred by the whole electorate compared to every other candidate, loses the election if the Coombs method is used.

In fact, the five-candidate set of preferences in Table 2.a is an example of this anomaly. As we see in Table 2.c, given these preferences, Conservative wins all head-to-head matchups against the other four candidates. Yet if the Coombs method were applied to these preferences, Progressive would be eliminated first as having the most last-choice votes; then Liberal would be eliminated next, and Conservative—the undefeated round-robin winner—would be eliminated third. In the final round of the Coombs elimination procedure, Populist would prevail over Opportunist. (This analysis can be confirmed online. See *Ranked-Ballot Voting Calculator*, ANGELO ST. UNIV., <https://www.cs.angelo.edu/~rlegrand/rbvote/calc.html> [https://perma.cc/ZYL6-Q8HK] (last visited Oct. 10, 2021).) The Coombs method thus fails to identify the most majority-preferred candidate in the field and indeed has as its two finalists—Populist and Opportunist—two candidates who are less majority-preferred than two others based on their total vote differential scores: Conservative and Liberal.

This example thus illustrates that round-robin voting, and not the Coombs method, is the better way to take into account negative as well as positive preferences. Round-robin voting gives equal consideration to all preferences, whether positive or negative. Unlike with IRV or the Coombs method, in round-robin voting a voter's relative preferences between two candidates count the same whether those preferences are higher or lower in the voter's rankings. Thus, round-robin voting privileges neither first-place nor last-place preferences. Because either form of privileging can skew overall results, in opposition to the majority will of the electorate as illustrated by the defeat of Conservative (and victory of Populist) given the preferences of Table 2.a if either IRV or Coombs is used, round-robin voting is able to identify the will of the majority more accurately than either IRV or Coombs.

44. See ROBERT A. DAHL, DEMOCRACY AND ITS CRITICS 138–39 (1989); CHARLES R. BEITZ, POLITICAL EQUALITY: AN ESSAY IN DEMOCRATIC THEORY 58–67

mathematically as May's Theorem, the essential idea is that anything other than majority rule privileges fewer voters rather than more, thus giving the privileged minority greater voting power than their numbers warrant in a polity committed to equality for all voters.⁴⁵ If there are only two options, A and B, and 51% of voters want A while 49% of voters want B, to let B prevail is to weigh each of the votes that form the 49% more than each of the votes that form the 51% precisely because, by definition, there are fewer votes in the 49% than in the 51%. Thus, to weigh each vote equally, as required by a basic principle of democracy, it is necessary to let the majority of 51% prevail in their preference for A.⁴⁶

Political scientists also have long known that the issue becomes infinitely more complicated, at least theoretically, once the number of options increases just from two to three.⁴⁷ The reason is that even just three voters can find themselves in an indeterminate cycle trying to decide among three options. Imagine a group of three voters—1, 2, & 3—with these preferences among three options—A, B, & C:

(1989); see also Wojciech Sadurski, *Legitimacy, Political Equality, and Majority Rule*, 21 *RATIO JURIS* 39 (2008).

45. See DAHL, *supra* note 44, at 141; BEITZ, *supra* note 44, at 58–59. John Rawls, the renowned twentieth-century American political philosopher, defended his view of majority rule in this way:

I have assumed that some form of majority rule is justified as the best available way of assuring just and effective legislation. It is compatible with equal liberty and possesses a certain naturalness; for if minority rule is allowed, there is no obvious criterion to select which one is to decide and equality is violated.

JOHN RAWLS, *A THEORY OF JUSTICE* 313 (rev. ed. 1999) (citation omitted). Jeremy Waldron is another major contemporary political and legal philosopher who has provided a sustained defense of majority voting over a series of writings. See JEREMY WALDRON, *THE DIGNITY OF LEGISLATION* (1999); JEREMY WALDRON, *LAW AND DISAGREEMENT* (1999); Jeremy Waldron, *Five to Four: Why Do Bare Majorities Rule on Courts?*, 123 *YALE L.J.* 1692 (2014); Jeremy Waldron, *A Majority in the Lifeboat*, 90 *B.U. L. REV.* 1043 (2010).

46. The problem with supermajority rules—as current opponents of the Senate filibuster vociferously argue—is that requiring anything more than 50% plus one (for example, 60%) is to give veto power over to a minority (40% plus one in the case of a 60% supermajority rule). MELISSA SCHWARTZBERG, *COUNTING THE MANY: THE ORIGINS AND LIMITS OF SUPERMAJORITY RULE* 1–4, 9–10 (2014).

47. See SZPIRO, *supra* note 6, at 42, 152 (surveying the history of the difficulties); Partha Dasgupta & Eric Maskin, *On the Robustness of Majority Rule*, in *THE ARROW IMPOSSIBILITY THEOREM* 101, 136 (Eric Maskin & Amartya Sen eds., 2014); SEN, *supra* note 21, at 2–3; MUELLER, *supra* note 27, at 149, 270–71; Iain McLean, *The Strange History of Social Choice*, in *HANDBOOK OF SOCIAL CHOICE AND VOTING*, *supra* note 24, at 15–16.

Table II. Example of Voting Cycle

Voter	1st choice	2nd choice	3rd choice
1	A	B	C
2	B	C	A
3	C	A	B

How are these three voters to decide which option to choose? Each voter has a different first-choice preference, and so no option prevails solely by looking at which option is most preferred by more voters. Suppose the voters decide to consider the options two at a time in a round-robin style of comparison. If they start with A versus B, A will prevail 2-1.⁴⁸ Now it is time to consider A versus C, and C will prevail 2-1.⁴⁹ But then if B is permitted to have a chance to compete against C, so that all options are fairly considered against each other—as is true in a round-robin competition—B will prevail.⁵⁰ Like the game Rock, Paper, Scissors, there is no obvious winner to this round-robin comparison: each option prevails once and is defeated once in each of its two head-to-head comparisons against the other options.

This problem can affect legislatures choosing among proposed laws as much as it can electorates choosing among candidates to hold office. Parliamentary procedures need, and have developed, methods to avoid endless cycling, although these methods inevitably have the effect of privileging some options over others.⁵¹ Likewise, democratic elections must develop methods for enabling an electorate to choose among more than two candidates vying for the same office, even if those methods in theory cannot perfectly put all candidates in exactly the same posture with respect to all voters.

One insight that political science has developed is that different offices can be elected using different electoral methods.⁵² The basic Madisonian idea that separation of powers and federalism serve the public interest overall by having the public represented in different ways by different parts of the government extends to the electoral methods by which the public's various representatives in government are chosen.⁵³

48. Both voters 1 and 3 prefer A to B: for voter 1, A is ranked first; for voter 3, A is ranked second, ahead of B.

49. Both voters 2 and 3 prefer C to A.

50. Both voters 1 and 2 prefer B to C.

51. Saul Levmore, *Parliamentary Law, Majority Decisionmaking, and the Voting Paradox*, 75 VA. L. REV. 971, 984–89, 993–95 (1989).

52. On this point, see especially Ian McLean, *Electoral Systems*, in THE ROUTLEDGE HANDBOOK OF ELECTIONS, VOTING BEHAVIOR, AND PUBLIC OPINION 207, 217 (Justin Fisher, Edward Fieldhouse, Mark N. Franklin, Rachel Gibson, Marta Cantojoch & Christopher Wlezien eds., 2018).

53. See BRUCE ACKERMAN, WE THE PEOPLE: FOUNDATIONS 6–7, 30 (1991). In recent work, Waldron has emphasized the crucial importance of developing a normatively

Members of a legislature, for example, can be chosen in district-based elections or through a system of proportional representation, whereas the chief executive of a polity—a mayor, governor, or president—can be chosen in an “at-large” election in which the entire polity votes for the same office.⁵⁴

This Essay will focus on how round-robin voting can serve the basic democratic goal of majority rule in the context of at-large elections, especially statewide elections in the United States, like those for governor or U.S. senator. The fundamental premise of this project is that it is desirable, to the extent possible, for the elected candidate to be the choice of the electorate’s majority. Reflecting the same insight as May’s Theorem, given the democratic commitment to equal voting rights, it is better for the majority rather than a minority to prevail.⁵⁵ As between more than half or less than half, which should control the choice? The answer, if we are to be true to the equality of all voters participating in the election, is that the part of the electorate over fifty percent should prevail over the part under fifty percent. Especially when choosing a chief executive, like the governor of a state, the electorate should be governed by an officeholder preferred by a majority of voters rather than an opposing candidate preferred by less than fifty percent of the electorate.⁵⁶

Accordingly, it is desirable to limit the November ballot to just two candidates. This way the winner definitely is chosen by a majority of voters. Absent a tie, which is of course highly unlikely in an electorate of a million or more voters (as is often true of statewide elections in the

sound theory of how best to design democratic institutions, including representative legislatures, drawing upon Madison, Montesquieu, and others. See JEREMY WALDRON, *POLITICAL POLITICAL THEORY: ESSAYS ON INSTITUTIONS* 2, 17 (2016).

54. For a discussion of electoral reform that emphasizes elections to the U.S. House of Representatives, see DRUTMAN, *supra* note 8, at 31–32, 127, 176, 242–43.

55. Madison himself came to this conclusion late in life. Given the inevitable choice “between a Republican Govern[ment] in which the majority rule the minority, and a Gov[ernment] in which a lesser number or the least number rule the majority,” Madison unequivocally declared, “republican government [is] the best of all governments, because the least imperfect; [and] the vital principle of republican government is the *lex majoris partis*, the will of the majority.” JAMES MADISON, *To — —*, in *THE WRITINGS OF JAMES MADISON* 520, 523, 528 (Gaillard Hunt ed., 1910).

56. See DRUTMAN, *supra* note 8, at 31–32. One way to reconcile a commitment to majority rule with the constitutional protection of personal rights from majoritarian tyranny is to argue for limited government, as the Founders did, MADISON, *supra* note 55, at 520–23, and also maintain that government so limited should be controlled by majority rule. In a system of limited government, in other words, there are some subjects that government itself cannot touch, and these limitations are enforceable through constitutional law. But for those domains that are subject to government power, that power should be exercised by majority rule. An eloquent encapsulation of this philosophy by the Supreme Court comes from Justice Jackson’s opinion for the Court in *West Virginia State Board of Education v. Barnette*, 319 U.S. 624 (1943), the *Flag Salute Case*, where he speaks of constitutional rights as being “beyond the reach of majorities.” *Id.* at 624–26, 638.

United States),⁵⁷ the candidate in a two-person race who receives more votes than the opponent necessarily has a majority of the votes cast in that race.⁵⁸ This kind of November election thus conforms to the fundamental principle underlying May's Theorem: democracy prevails because the majority of voters get the choice they want. Given the choice between Candidates A and B, the majority preferred A rather than B, and for precisely that reason A wins the election and becomes the officeholder.

If the November election is confined to two candidates, how the two candidates are chosen obviously becomes crucial. Here is where the idea of the round-robin primary comes in. Although nothing can completely eliminate the theoretical issue of the electorate's preferences potentially cycling among three or more candidates, a round-robin primary that identifies two candidates for the November ballot is the electoral method most consistent with the basic idea of majority rule—choosing a winner to hold office who best represents the candidate the majority of voters most want to win.

For centuries, it has been recognized that something like a round-robin is the best way to identify the will of a majority.⁵⁹ Given a set of voters, the one-on-one matchups that form a round-robin identify the preference of the majority in each matchup. With respect to A versus B, does a majority prefer A or B? With respect to A versus C, does a majority prefer A or C? With respect to B versus C, does a majority prefer B or C? And so forth.

If there is one candidate who wins all of these round-robin matchups, that candidate obviously is the clear majority-preferred candidate in the election.⁶⁰ In this situation, a majority of voters prefer that candidate to

57. Even states with fewer than a million voters have hundreds of thousands. For example, Representative Liz Cheney won her most recent statewide election in America's least populous state (Wyoming) with 185,732 votes, and her opponent received 66,576. *United States House of Representatives Election in Wyoming, 2020*, BALLOTPEdia, https://ballotpedia.org/United_States_House_of_Representatives_election_in_Wyoming,_2020 [https://perma.cc/U8QJ-U2HT] (last visited Oct. 10, 2021).

58. This mathematical necessity assumes there is no option for write-in candidates in order to keep it a strictly two-candidate election. On the constitutionality of eliminating the option of write-in votes in order to preserve the principle of majority rule, see *Burdick v. Takushi*, 504 U.S. 428, 428–30, 439 (1992).

59. See *supra* note 6 and accompanying text.

60. This candidate that beats all others head-to-head, where one exists, is a "Condorcet winner" and, by definition, is more majoritarian than any other candidate in the field. The theoretical literature derived from Condorcet's exploration of the idea is vast. (Introductory texts, with bibliographies to more sources, are also plentiful. See *supra* note 27.) For important recent efforts to employ Condorcet-derived analysis in U.S. elections, see Eric Maskin & Amartya Sen, *The Rules of the Game: A New Electoral System*, N.Y. REV. OF BOOKS (Jan. 19, 2017), <https://www.nybooks.com/articles/2017/01/19/rules-of-the-game-new-electoral-system/> [https://perma.cc/C8XU-RVZB]; Eric Maskin & Amartya Sen, Opinion, *How Majority Rule Might Have Stopped Donald Trump*, N.Y. TIMES (Apr. 28, 2016), <https://www.nytimes.com/2016/05/01/opinion/sunday/how->

every other candidate in the field. It is like a Big 12 football team having an undefeated season after a series of round-robin matches against every other team in the conference. But, as indicated already, while this kind of undefeated winner in a round-robin competition is especially impressive whether it occurs in football or in politics, it is not necessary that there be an undefeated candidate for round-robin competition to identify which candidate is strongest in terms of being able to achieve more victories against other candidates or achieve victories with larger vote margins.

Consider, for example, a round-robin competition among eight candidates. Each candidate will have a one-on-one matchup against each of the other seven candidates. Suppose no candidate is undefeated but one of these candidates wins six of these seven matchups, while no other candidate wins more than five of these matchups. The candidate with six victories can claim to be the most majority-preferred candidate in the field. In each of these six winning matchups, this candidate was preferred by a majority of voters. To be sure, there was another single matchup in which a different candidate was preferred by a majority of voters, but that other candidate was not preferred by a majority more often than the six-win candidate was. No other candidate was majority-preferred as often—hence the six-win candidate’s claim to being the most majority-preferred candidate.⁶¹

It’s like a football team at the top of the standings with a record of 6-1 at the end of the season. Yes, there was that one defeat, but no other team had as many wins. The one defeat may have come at the hands of a team with a 5-2 record, and the 5-2 team’s victory over the 6-1 team is a reason for the two to play each other again in a final championship round to determine which team earns the title of league champion. But unless and until that championship match occurs, the 6-1 team is still the most victorious (or “winningest”) team in the league. And in the case of the 6-1 candidate in a round-robin election, being the winningest candidate

majority-rule-might-have-stopped-donald-trump.html [https://perma.cc/SU7Q-PWZ7]; see also Eric Maskin & Amartya Sen, Opinion, *A Better Electoral System in Maine*, N.Y. TIMES (June 10, 2018), <https://www.nytimes.com/2018/06/10/opinion/electoral-system-maine.html> [https://perma.cc/9KYS-DU9M] (advocating Instant Runoff Voting as a second-best alternative to a Condorcet-based electoral system). For a theoretical presentation leading to the same defense of Condorcet’s method of identifying a majority winner, see Partha Dasgupta & Eric Maskin, *Strategy-Proofness, Independence of Irrelevant Alternatives, and Majority Rule*, 2 AM. ECON. REV.: INSIGHTS 459, 459–60, 472 (2020); see also Partha Dasgupta & Eric Maskin, *Elections and Strategic Voting: Condorcet and Borda* 3–4, 8, 26 (Jan. 2020) (unpublished manuscript) (on file with author) (exploration of the theoretical relationship of Condorcet’s criterion and the Borda score).

61. In the theoretical literature on electoral systems, the approach of identifying a candidate with the most head-to-head wins against all other candidates—even if the winning candidate is not undefeated—is known as the “Copeland method.” See Donald G. Saari & Vincent R. Merlin, *The Copeland Method*, 8 ECON. THEORY 51, 51–52 (1994).

means being preferred by a majority of voters more than any other candidate.

As we have seen, sometimes it is necessary to break a tie between two candidates with an equal number of majority-preference victories. (Suppose, for example, two candidates both have five wins and two losses from their seven round-robin matchups.) The use of each candidate's vote differential, as described previously, is the tiebreaker method most consistent with the basic idea of majority rule. A candidate's vote differential measures how much of a majority the candidate had in each majority victory. A 60% to 40% win is a larger majority victory than a 55% to 45% win. Thus, a candidate's overall vote differential from all round-robin matchups is the cumulative size of the candidate's majority wins (discounted by the size of the candidate's minority losses, to form the overall vote differential). Consequently, for two candidates with the same number of majority wins, the candidate with the higher vote differential can claim to be more majority-preferred. Relatively speaking, that candidate's majority wins are overall larger—more dominant in the size of their majorities—than the other candidate's.

The analysis is similar to two fencers having the same number of victories (and defeats) after a series of round-robin bouts. Of these two fencers, the one whose victories overall were more lopsided had the stronger victories. This lopsidedness is measured by each fencer's point differential: points for minus points against from all round-robin bouts is a way to break the tie between the same number of victories. When the same kind of tiebreaker is used in round-robin voting, the candidate with the higher overall vote differential is the one, given the same number of majority-preference victories as the other candidate, who is more majority-preferred overall than the other candidate.

Given the goal of identifying the two candidates who most deserve to be the only two on the November ballot so that the November choice is a majority-preference election, the calculations of round-robin voting are best able to show which two candidates in a multi-candidate field have the strongest claims to being majority-preferred. Based on the round-robin voting results after the one-on-one matchups, the two candidates at the top of the standings will have the most majority-preference victories compared to all other candidates or, when necessary as a tiebreaker, will have an overall vote differential that indicates a greater degree of majority preference than the other candidates.⁶² Thus, as an electoral system,

62. It is possible that the two candidates with the highest numbers of round-robin victories are not the same two candidates with the two highest total vote differential scores. The 2021 New York City mayoral primary offers an example. Although IRV was used to identify the winner, an analysis of the ranked-choice ballots in the election indicates that if round-robin voting had been used to determine the relative strength of the top five candidates on the ballot, Eric Adams would have defeated all four opponents in one-on-one round-robin matches, and Maya Wiley would have defeated all but one of her

TERRP identifies the two candidates who are most consonant with the basic idea of majority rule and has those two candidates compete against each other for the definitive status of representing the will of the majority. In this way, TERRP is the electoral system best designed to implement the fundamental democratic principle of majority rule.

III. SOME TECHNICAL DETAILS IN THE IMPLEMENTATION OF TERRP

Now that the basic methodology and underlying principles of TERRP have been set forth, it is time to consider some more specific details that would arise if and when TERRP were adopted. One issue to consider is the phenomenon of incomplete rankings among some portion of ballots in a system that employs ranked-choice ballots.⁶³ Another is the number of candidates in the round-robin primary, along with the related matter of how candidates qualify for inclusion in the round-robin primary. Also related is whether to conduct two separate round-robin primaries—one “blue” and the other “red” corresponding roughly to the two sides of the

opponents (as Adams would have defeated her). *See RCV in New York City*, FAIRVOTE, https://www.fairvote.org/rcv_in_new_york_city#candidate_analysis [<https://perma.cc/V76J-9RE3>] (last visited Oct. 24, 2021) (Condorcet Winners section). In third place would have been Kathryn Garcia, with two wins and two defeats (losing to both Adams and Wiley). *See id.* Andrew Yang would have been in fourth place, with one win and three defeats, and Scott Stringer would have been in last place with no wins and four defeats. *See id.*

In terms of total vote differentials, however, Garcia would have had the second highest score (398,764), while Wiley would have had only the third highest score (291,317). Adams still would be in first place using total vote differentials as the metric: 518,360. (Both Yang and Stringer would have had negative total vote differential scores: -449,946 and -758,495, respectively.) This example shows that, based solely on the use of total vote differential scores, Garcia rather than Wiley could be considered the second strongest candidate in the race. But round-robin voting considers total vote differentials only as a backup metric if necessary to break ties between two (or more) candidates in second place based on equal numbers of wins and losses in the round-robin competition. In this example, Wiley is in sole possession of second place with a better win-loss record than Garcia: 3-1 rather than 2-2. Thus, under TERRP, Adams and Wiley (not Adams and Garcia) would be the two candidates to face off against each other for a final vote to verify the electorate’s presumptive choice of Adams as the majority-preferred candidate. (The data and this analysis are on file with the author and available upon request. Note, too, that this example from New York City was itself a Democratic Party primary, not the first of a two-stage nonpartisan process.)

63. For round-robin voting, in contrast to IRV, it is important to give voters the option to rank all the candidates on the ballot. Even if voters choose not to rank some candidates, they need to be permitted to indicate their preferences between each pair of candidates. In the New York City Democratic mayoral primary, for example, voters were permitted to rank only five of thirteen candidates on the ballot. *See Ranked Choice Voting*, BD. OF ELECTIONS IN CITY OF N.Y., <https://vote.nyc/page/ranked-choice-voting> [<https://perma.cc/RSA3-PN4L>] (last visited Oct. 24, 2021). That constraint would not be effective for a full round-robin analysis of the ranked-choice ballots.

conventional Left-Right ideological spectrum—rather than a single round-robin primary for all candidates.

A. How Round-Robin Voting Handles Incomplete Ballot Rankings

If ranked-choice ballots are used for the round-robin primary, the question arises of what to do with the ballots that do not rank all the candidates in the primary. For example, suppose there are five candidates in the round-robin primary. Some voters may rank all five candidates, but others may rank only two or three or even only one.

This issue could be avoided if actual round-robin ballots, rather than ranked-choice ballots, were used in the primary. If voters were directly asked to vote on each of the ten one-on-one matchups in the round-robin competition among these five candidates, then there would be no need to consider unranked candidates.⁶⁴ Of course, a voter still could decline to express a preference between the two candidates involved in any one of the ten head-to-head matchups, but in that case the voter's own declination would be a direct statement of the voter's indifference between these two contestants.

On the assumption, however, that a round-robin primary would use ranked-choice ballots because of their efficiency relative to actual round-robin ballots—the voters needing to provide only a single set of rankings for all five candidates rather than stating a separate preference in each of the ten one-on-one matchups—it becomes necessary to consider how to treat ballots that leave candidates unranked for the purposes of constructing the round-round competition from the ranked-choice ballots.

64. A computer screen would be a much easier interface than a paper ballot if voters were required to vote on each round-robin matchup. The computer screen could refresh itself for each matchup, which would appear randomly for each voter: for example, Populist versus Liberal might be the first matchup for one voter, while Conservative versus Progressive would be the first matchup for a different voter. After a voter indicated the preferred candidate in one head-to-head match and pressed a “next” button on the screen, another matchup would appear, and this round-robin voting would be repeated until all the matchups were complete. Obviously, the task of voting in each of these ten matchups would be more time-consuming than filling out a ranked-choice ballot for five candidates.

Table 3.a. Incomplete Rankings Variation Derived from Table 2.a

% of voters	1st choice	2nd choice	3rd choice	4th choice	5th choice
10	Populist	Opportun	Conserv	Liberal	Prog
10	Populist	Opportun			
10	Populist	Conserv			
7	Opportun	Populist	Conserv	Liberal	Prog
3	Opportun	Conserv			
2	Conserv	Opportun	Populist	Liberal	Prog
6	Conserv	Populist	Opportun	Liberal	Prog
7	Conserv	Opportun	Liberal		
5	Conserv	Liberal			
3	Liberal	Conserv	Prog		
6	Liberal	Prog	Conserv	Opportun	Populist
6	Liberal	Prog			
7	Prog	Liberal			
4	Prog				
10	Prog	Liberal	Conserv	Opportun	Populist
4	Prog	Liberal	Conserv	Populist	Opportun

Note abbreviations: “Opportun” for Opportunist, “Conserv” for Conservative, and “Prog” for Progressive

This issue, as it turns out, is not a difficult one. There are two straightforward rules to use for this situation. The first is that, to determine each voter’s preferences between candidates in the round-robin’s one-on-one matchups, a voter is deemed to prefer any ranked candidate over any unranked candidate. The second is that, if a voter leaves two or more candidates unranked, this voter is deemed to be indifferent with respect to the one-on-one matchup between any pair of these unranked candidates.⁶⁵

Consider, again, a hypothetical round-robin primary between the five candidates identified previously: Populist, Opportunist, Conservative, Liberal, and Progressive. If a voter ranks Populist first and Opportunist second but leaves the other three candidates unranked, then for purposes of the round-robin competition, this voter is deemed to prefer both Populist and Opportunist over the other three in each of the relevant head-to-head

65. One cannot know what a voter’s subjective views are, if any, concerning a comparison of two unranked candidates, but in terms of the information that the voter provides on the ballot, the voter expresses no preference between two unranked candidates, and thus the voter’s ballot as cast must be considered indifferent concerning the one-on-one choice between these two candidates.

matchups. This same voter is deemed indifferent between Conservative, Liberal, and Progressive in each head-to-head matchup among these three unranked candidates.

Given these rules, we can construct the complete round-robin competition among all five candidates even if a significant portion of ballots leave candidates unranked. To illustrate, instead of the ballot rankings in Table 2.a (which had no unranked ballots), now suppose the ballot rankings for the primary among these five candidates are those as shown in Table 3.a on the previous page. This set of ballots still has a portion that ranks all five candidates, but unlike the previous set, this set also has a large portion of ballots that rank only two or three, or even just one, of the five contenders. Even so, from these ballots, and using the two specified rules for handling unranked candidates, we can generate the ten round-robin matchups set forth in Table 3.b (on the next page).⁶⁶ These ten matchups produce, according to the same methodology as before, the standings among the candidates as shown in Table 3.c (on the following page).

As before, Conservative is clearly the strongest candidate in the round-robin competition, undefeated with four wins and no losses. Once again, however, there is a three-way tie for second place based on number of wins and losses: Liberal, Populist, and Opportunist each have two wins and two losses. The vote differential score again breaks this tie, with Liberal having the highest score: 12 compared to -2 for Populist and -19 for Opportunist. Liberal's victories were thus relatively stronger and defeats relatively narrower as a whole, making Liberal more majority-preferred overall compared to these other two. For this reason, Liberal is the candidate most deserving of the three to compete against Conservative in the November general election to determine who best represents the majority will of the electorate.⁶⁷

66. Note that because of unranked ballots, the percentages in Table 3.a do not add to 100. This important point is addressed subsequently.

67. In this example, the same two candidates (Conservative and Liberal) are at the top of the standings, whether or not there are unranked ballots. This concurrence will not always be the case. It all depends on what the actual rankings on the ballots are, including the omissions that exist as a consequence of incompletely ranked ballots. The rules, as explained, will dictate the results. Nonetheless, it is worth observing that, in this particular example, the failure of voters to complete rankings that they might have included does not "distort" the outcome by identifying different candidates prevailing as a consequence of these omissions.

Table 3.b. Head-to-Head Results from Voter Preferences in Table 3.a

Round-Robin Matchup	Winner	W %	Loser	L %	Win Margin
Populist v. Conservative	Conservative	46	Populist	37	9
Populist v. Liberal	Liberal	48	Populist	45	3
Populist v. Progressive	Populist	45	Progressive	40	5
Conservative v. Liberal	Conservative	50	Liberal	36	14
Conservative v. Progressive	Conservative	53	Progressive	37	16
Liberal v. Progressive	Liberal	52	Progressive	25	27
Opportunist v. Populist	Populist	40	Opportunist	35	5
Opportunist v. Conservative	Conservative	53	Opportunist	30	23
Opportunist v. Liberal	Opportunist	45	Liberal	41	4
Opportunist v. Progressive	Opportunist	45	Progressive	40	5

Although this example shows that round-robin voting can easily handle the phenomenon of ranked-choice ballots with unranked candidates, these incomplete ballots require us to discuss more fully how round-robin voting implements the principle of majority rule. When some voters in an election are indifferent between a pair of candidates, it is possible that one of these two candidates can win a head-to-head matchup by being the preference of less than fifty percent of all voters in the election. Table 3.b, for example, shows that Populist beats Liberal in their one-on-one matchup 48% to 45%, meaning that 48% of all ballots cast preferred Populist over Liberal, while 45% of all ballots preferred Liberal over Populist, and the remaining 7% of ballots expressed no preference between these two candidates because these ballots left both candidates unranked.

Table 3.c. Standings from Head-to-Head Matchups in Table 3.b

Candidate	W	L	Total Votes For	Total Votes Against	Total Vote Diff	Total W/L Margins
Conserv	4	0	202	140	62	+9+14+16+23 = 62
Liberal	2	2	177	165	12	+3-14+27-4 = 12
Populist	2	2	167	169	-2	-9-3+5+5 = -2
Opportun	2	2	155	174	-19	-5-23+4+5 = -19
Progressive	0	4	142	195	-53	-5-16-27-5 = -53

Note abbreviations: “Diff” for Differential, “Conserv” for Conservative, and “Opportun” for Opportunist

How, one might ask, is this outcome consistent with majority rule?⁶⁸ The answer is that it depends on how best to understand the idea of a majority preference in the context of round-robin voting. Obviously, 48% is less than half of all ballots cast in the election. But here it is not less than half of the voters who expressed a preference between these two candidates. On the contrary, a 48% to 45% victory for Populist over Liberal means that a majority of voters who expressed a preference between these two candidates preferred Populist over Liberal. To be precise mathematically, 48 is 51.6% of the 93 who expressed a preference between these two candidates (and 45 is 48.4% of those who expressed a preference).

It always matters how one defines a majority for the purpose of implementing the fundamental principle of majority rule. In a legislature, a majority vote can pass a measure into law as long as a quorum of the legislature is present, even though the majority of votes in favor of passage may be less than a majority of all the legislature’s members.⁶⁹ Only if a so-called “absolute majority” is required for enactment of a law is it necessary to obtain positive votes from more than half the legislature’s members rather than just more than half of those members voting on the measure.⁷⁰ In other words, if the yeas are greater than the nays, the measure passes regardless of the number of members abstaining from the vote as long as there is enough for a quorum. Abstentions do not count against the majority in favor (or add to the minority opposed).

68. A comparable question also arises with IRV. See Richard H. Pildes & G. Michael Parsons, *The Legality of Ranked-Choice Voting*, 109 CALIF. L. REV. 1773, 1818–27 (2021), whose discussion of the issue in that context is consistent with the parallel discussion here).

69. See HENRY M. ROBERT, ROBERT’S RULES OF ORDER 345–46 (Sarah Corbin Robert, Henry M. Robert III, William J. Evans, Daniel H. Honemann & Thomas J. Balch eds., 11th ed. 2011).

70. See Adrian Vermeule, *Absolute Majority Rules*, 37 BRIT. J. POL. SCI. 643 (2007).

In an electoral (rather than legislative) vote, a majority is rarely if ever calculated based on the number of eligible, or even registered, voters. Instead, it is based on the number of votes cast in the election.⁷¹ Moreover, the number of votes is not necessarily the same as the number of ballots. Even when conventional ballots are used, which permit voters to identify only one most-preferred candidate—in contrast to ranked-choice ballots that permit voters to identify multiple candidates in order of preference—there can be a gap in the number of votes and number of ballots. Often called the “undervote” and made famous during the 2000 Florida recount, there can be a percentage of voters who cast a ballot but decline to cast a vote in a particular race on the ballot.⁷² Thus, for purposes of calculating whether a candidate wins a majority in a particular race, it is necessary to decide whether the calculation will be a majority of *votes* cast in that race or a majority of *ballots* cast in the election overall. For example, a candidate who wins 51% of the votes cast in the particular race may receive votes from under 50% of all ballots cast in the election because of the undervote in that race. Conventionally, the determination of whether or not a candidate receives a majority is based on votes, not ballots, because the relevant inquiry is deemed to be whether the candidate was preferred by a majority of those voters expressing a preference between the candidates in the race.⁷³ Voters who abstain from voting in the particular race, like voters who do not cast a ballot at all in the election, are not considered to be affecting whether or not the candidate received support from a majority of voters.

In this respect, abstentions are different from votes cast for minor-party, independent, or write-in candidates. Any votes cast for another candidate are a preference for that candidate. Thus, if a candidate received only 47% of the votes because another candidate received 46% and a third received 7%, then there is no way to say that the candidate who received 47% was preferred by a majority of voters. But if in a race with only two candidates the undervote was 7% and one candidate received votes on 47% of ballots cast in the election while the other candidate received votes on 46% of ballots cast, then it is true that *this* 47% candidate was preferred by a majority of voters who cast votes in that particular race. *This* candidate won 50.5% of the votes cast in the two-candidate contest. In other words, of the voters who participated in the choice between these two candidates and who thus did not abstain from this choice, a majority of 50.5% chose one candidate over the other. For this reason, to award the

71. Pildes & Parsons, *supra* note 68, at 1780–81.

72. See Andrew Menger, Robert M. Stein & Greg Vonnahme, *Reducing the Undervote with Vote By Mail*, 46 AM. POL. RSCH. 1039, 1039–41 (2017); Richard Briffault, *Bush v. Gore as an Equal Protection Case*, 29 FL. ST. U. L. REV. 325, 325–26, 332–33 (2001).

73. Pildes & Parsons, *supra* note 68, at 1818–19.

particular elective office to this majority-preferred candidate is consistent with the fundamental democratic idea of majority rule.

The same point applies to round-robin voting. This is true whether round-robin voting employs round-robin or ranked-choice ballots. As we have seen, even with the use of round-robin ballots, there could be an “undervote” with respect to any of the specific one-on-one matchups. If asked directly their preference between any two candidates—for example, Liberal versus Conservative—some percentage of voters might simply abstain from expressing a preference in that particular matchup. But these abstentions would not negate the fact that one of these candidates would be preferred by a majority of voters who express a preference for one or the other. In this way, round-robin voting yields a majority preference for each of the one-on-one matchups. All voters who participate in the choice between each pair of candidates necessarily choose one or the other, and thus the candidate chosen by more voters than the other candidate necessarily is chosen by a majority who participate in the choice.

The use of ranked-choice ballots rather than round-robin ballots does not undermine this analysis. When one candidate beats another in the head-to-head comparison that results from ranked-choice ballots, the winning candidate mathematically is preferred by a majority of voters who express a preference between this pair of candidates. It is true that there may be an “undervote” in this head-to-head matchup as reflected by the percentage of ballots that leave this pair of candidates unranked. But these abstentions from the specific choice between these two candidates still leave one candidate preferred by a majority of voters who do not abstain but instead participate in the choice between these two.

Accordingly, round-robin voting is fully consistent with the fundamental principle of majority rule even when recognizing the existence of unranked candidates, who cause undervotes or abstentions from some of the head-to-head matchups that form the round-robin competition generated from ranked-choice ballots. Moreover, insofar as round-robin voting is used in the primary stage of a two-stage tournament-style election, to identify two candidates most worthy of facing off on the November ballot, the combined elements of TERRP form an electoral system that as a whole is most consonant with the eventual winner being the choice of the majority—and thus an exercise in majority rule.⁷⁴

74. It is possible to design a round-robin election that permits voters to rank only their most preferred and least preferred candidates, while leaving unranked candidates in between. For example, a voter might prefer Progressive the most and Populist the least and be indifferent as to the three other candidates in the middle. A ranked-choice ballot could be designed that would permit this voter to express this preference. The ballot could instruct the voter that it is permissible to rank one candidate first and another candidate last but choose not to rank any other candidates. If a voter did this, the mathematical calculation of round-robin voting would be to treat the first-choice candidate as preferred above all others, the last-choice candidate as disfavored compared to all others, and to treat the voter as

B. The Number of Candidates in a Round-Robin Primary

As we have just explored, round-robin voting can handle—both operationally and conceptually—abstentions (or “undervotes”) in the form of unranked candidates. Nonetheless, it is preferable to avoid these abstentions to the extent possible. Just as it is desirable for all members of a legislature to vote on a bill or for turnout in an election to be as high as possible, majority rule is more robust when a candidate’s winning majority does not occur in the context of a large undervote in the particular race.

This point relates to the number of candidates competing against each other in a round-robin primary. The larger the number of candidates, the more likely that a higher percentage of voters will leave some candidates unranked, thereby abstaining from indicating any preference between each pair of candidates. Conversely, the way to reduce the percentage of ranked-choice ballots with unranked candidates is to decrease the number of candidates.

The recent New York City Democratic mayoral primary is a useful illustration of this point. There were thirteen candidates on the ballot, but the race boiled down to essentially four main contenders.⁷⁵ With so many candidates on the ballot, it was inevitable that many voters left many candidates unranked—and this would have been true even if voters had been permitted to rank all the candidates instead of just their top five choices.⁷⁶ The mathematics of round-robin voting is able to handle any number of candidates on the ballot as long as voters are able to rank relative preferences among all candidates so that the head-to-head matches between each pair of candidates can be computed.⁷⁷ The fact that voters choose not to provide rankings for some candidates does not defeat the round-robin calculations as long as voters have the chance to provide them. Even so, the competition among serious candidates works better, without distraction from extraneous candidates, if the round-robin primary is limited only to those candidates with a viable chance of prevailing.⁷⁸ In the case of the New York City Democratic mayoral primary, if round-

indifferent between the unranked candidates. While permitting a voter to do this might be viewed as an additional element of complexity, it has the advantage of enabling voters to express preferences that a candidate be defeated relative to competitors even if the voter is indifferent among all the competitors whom the voter prefers over the singularly objectionable candidate.

75. See *supra* note 68 and accompanying text; Juliana Kim, *The Mayoral Race Heats Up for Top Contenders*, N.Y. TIMES (May 31, 2021), <https://www.nytimes.com/2021/04/15/nyregion/mayoral-race-new-york.html> [<https://perma.cc/TX27-UX69>].

76. See Menger, Stein & Vonnahme, *supra* note 72.

77. See Harary & Moser, *supra* note 1, at 231, 236, 240; see *Head-to-Head Comparisons*, FAIRVOTE, https://www.fairvote.org/head_to_head_comparisons_feb28 [<https://perma.cc/E6ZY-HJTT>] (last visited Oct. 10, 2021).

78. See Pildes & Parsons, *supra* note 68, at 1782.

robin voting had been employed, it would have been preferable to winnow the field to just the four (or perhaps five) candidates with a reasonable chance of success.⁷⁹

This analysis invites consideration of how best procedurally to limit a round-robin primary to just those main contenders so that the ranked-choice ballots are not cluttered with the additional nonviable candidates. If the primary is limited in this way, voters can concentrate on only those candidates that matter. Formal debates among the primary candidates can be limited to only those qualifying for the ballot. Campaign advertising likewise can be confined to just those candidates actually in the primary race. The electoral process will be healthier insofar as it eliminates extraneous “noise” so that voters can focus on the meaningful “signal” sent by messaging from viable candidates.⁸⁰ Then, when the voters actually cast their ballots—whether in round-robin or ranked-choice format—the voters’ own choices will involve only those candidates with a chance and not candidates who essentially function as a distraction. All candidates need to have an adequate opportunity to attract attention and gain traction among voters,⁸¹ but at some point the field should be narrowed to only the subset that have a reasonable chance of ending up the majority choice of the entire electorate.

Technology can help with the process of limiting the primary ballot to only a set of credible candidates. The state’s chief elections officer (usually a secretary of state⁸²) can operate a website at which every candidate wishing to run in the primary can file a petition. There could be eight, twelve, twenty, or more candidates filing these petitions, all of whom would be listed on this website.

All registered voters in the state then could access this website using a secure, password-protected identifier to indicate their support for each candidate whom the voters wished to see on the primary ballot. The voters, in effect, would be using the website to sign electronically a candidate’s petition to be on the ballot. Each voter would be entitled to sign as many

79. In this primary election, only five candidates received more than 5% of first-choice votes, and these five candidates together received almost 90% (89.4%) of all first-choice votes cast. See BD. OF ELECTIONS IN CITY OF N.Y., ELECTION RESULTS (2021), https://vote.nyc/sites/default/files/pdf/election_results/2021/20210622Primary%20Election/rcv/DEM%20Mayor%20Citywide.pdf [<https://perma.cc/3G89-NH3P>].

80. Cf. NATE SILVER, *THE SIGNAL AND THE NOISE: WHY SO MANY PREDICATIONS FAIL—BUT SOME DON’T* 7–8, 17 (2d ed. 2015) (differentiating the “signal” from the “noise” in the context of translating information into useful knowledge).

81. See Edward B. Foley, *Winnowing and Endorsing: Separating the Two Distinct Functions of Party Primaries*, in *THE BEST CANDIDATE: PRESIDENTIAL NOMINATION IN POLARIZED TIMES* 80 (Eugene D. Mazo & Michael R. Dimino eds., 2020).

82. See *Election Administration at State and Local Levels*, NAT’L CONF. OF ST. LEGISLATURES (Feb. 3, 2020), <https://www.ncsl.org/research/elections-and-campaigns/election-administration-at-state-and-local-levels.aspx> [<https://perma.cc/75K4-CGE5>].

candidates' petitions as they wished, but each voter could sign a candidate's petition only once.⁸³

Mathematically, this petition-signature process would be the equivalent of "approval voting," in which each voter can cast a single "approval" vote for as many candidates as the voter wishes.⁸⁴ The petition-signature process can be structured to give each voter ample opportunity to cast these approval votes. For example, the deadline for candidates to submit their petitions might be March 1, and voters might have three months, until June 1, to sign as many of these petitions as they wish. Access to the website for signing these petitions would be available not only on computers owned by voters, but also on publicly accessible computers in libraries, community centers, social service agencies, and other locations. For those voters uncomfortable with website access to these petitions, candidates could also be permitted to circulate paper-based versions of their petitions, which voters could sign by hand in the old-fashioned way. The deadline for submitting these paper-based signatures could be the same, June 1, as the deadline for signing these petitions electronically on the website. Given this June 1 deadline for signatures, the primary itself could be scheduled in September, giving election officials ample time to prepare the primary ballot (including for military and overseas voters).

With this petition-signing system in place, there are two different ways to limit the number of candidates who qualify for the primary ballot. One way would be simply to specify the number of candidates entitled to be on the ballot and then award those specified spots to the candidates whose petitions attract the most signatures. For example, if the round-robin primary is limited to four candidates, then the four candidates with the highest number of signatures on their petitions would qualify for the round-robin primary. Mathematically, this system would be the equivalent to four candidates receiving the most "approval votes" qualifying for the primary ballot. Because "approval voting" measures whether candidates are viewed favorably or unfavorably by voters (although not with the same precision as round-robin voting), it is a useful mechanism for screening

83. Cybersecurity issues would need to be addressed adequately in order to make this idea operational, but because there would not be the need to protect the secrecy of these electronic signatures (unlike with a secret ballot), the cybersecurity challenges would be more akin to online banking or currently existing online voter registration databases than online ballot-casting—and thus, at least in principle, manageable given current technology. See Judd Choate & Robert Smith, *Election Cybersecurity*, in *THE FUTURE OF ELECTION ADMINISTRATION* 279, 279, 286–87 (Mitchell Brown, Kathleen Hale & Bridgett A. King eds., 2020); Marian K. Schneider, *Election Security: Increasing Election Integrity by Improving Cybersecurity*, in *THE FUTURE OF ELECTION ADMINISTRATION* *supra*, at 243, 252–53.

84. See STEVEN J. BRAMS, *MATHEMATICS AND DEMOCRACY: DESIGNING BETTER VOTING AND FAIR-DIVISION PROCEDURES* 4 (2008).

candidates to determine who should qualify for participation in the round-robin competition. With this approach, the number of candidates to qualify for the round-robin primary could be set at four or five, or some other number, depending on how many candidates voters should be expected to compare against each other as part of the round-robin competition.

Alternatively, the number of qualifying candidates could remain indeterminate with a threshold number of signatures being required to qualify for the primary ballot. For example, candidates could be required to have their petitions signed by at least ten percent of registered voters in order to qualify for the round-robin primary. Because the signature-collection process would be conducted electronically through the website rather than going door-to-door in the old-fashioned way (at least for the most part), the obligation to collect signatures from ten percent of registered voters should not be considered unduly onerous. Instead, it would be a sign of sufficient receptivity among voters for the candidate to deserve a spot in the round-robin competition. Because signature collection in this system is the mathematical equivalence of approval voting, requiring candidates to collect signatures from ten percent of voters is the same as requiring candidates to receive approval votes from ten percent of the electorate. Candidates who cannot demonstrate that threshold level of support after three months of urging voters to sign their petitions so that they can at least qualify for the primary ballot are not well-positioned to be competitive in the round-robin primary itself, where their win-loss records would be determined by the number of one-on-one matchups in which they are preferred (or not) by a majority of voters. But if requiring candidates to receive approval votes from ten percent of the electorate is considered too high a threshold, qualification for the primary could be set at five percent or even some lower amount.⁸⁵

85. See, e.g., *Jenness v. Fortson*, 403 U.S. 431, 431–32 (1971) (upholding a 5% signature requirement). Under the Supreme Court’s applicable precedents, including the general *Anderson-Burdick* balancing test, a threshold that a candidate must meet in order to appear on the government’s ballot must be evaluated in light of the interests that the threshold requirement serves and the burdens it imposes. See Christopher S. Elmendorf, *Structuring Judicial Review of Election Mechanics: Explanations and Opportunities*, 156 U. PA. L. REV. 313, 329–30 (2007). Based on this analysis, an electronic signature system would not be unduly burdensome compared to door-to-door gathering of handwritten signatures. Moreover, there would be zero barriers to entry for candidates to participate in the system to begin with; as long as they were eligible, all they would need to do is register for participation. At that point, a 5% electronic signature threshold to advance to the next stage, or even a 10% threshold, would not be a “burden” under *Anderson-Burdick* balancing but simply the government’s mechanism for winnowing the field of candidates in a multistage process. *Id.* at 364–68. Because in this context electronic signature gathering—unlike handwritten signature gathering—would function as a preliminary stage of electoral competition governed by approval voting, where candidates faced no obstacles to participating in this approval voting process (all candidates would be essentially on the ballot for the approval voting stage), this system should easily pass *Anderson-Burdick* review. See *id.* at 351–53; see also *Storer v. Brown*, 415 U.S. 724, 724–25, 732 (1973).

Moreover, the two approaches could be combined in a hybrid qualification formula. For example, the five candidates with the most petition signatures would qualify, along with any other candidates who collected signatures from at least 5% of voters. If only four candidates crossed the five-percent threshold, then the primary would be limited to these four plus whichever additional candidate had the next highest number of signatures. But if seven candidates crossed the 5% threshold, then all seven would qualify for the round-robin primary. This “five-five” hybrid formula might be considered a good place to start, with states experimenting and adjusting the formula as they develop experience with implementing TERRP. As another option, a “four-ten” hybrid formula would be a stricter version of the same idea: at least four candidates would qualify, plus any additional candidates with approval votes (in other words, petition signatures) from 10% of registered voters.⁸⁶

Indeed, different states might find that the qualification formula should vary depending on the size of a state’s population and which elective office is at stake. A governor’s race in a high-population state might, for example, require more candidates in the primary than a down-ballot race in a low-population state. Round-robin voting can work whatever the number of candidates in the race, but states might find that TERRP functions most effectively by tailoring the number of candidates in the round-robin primary to suit local conditions and the particular nature of the election involved.

C. Two Separate Round-Robin Primaries Instead of One?

In sports, it is possible to structure one round-robin competition among all teams in a league, as is the case with each Big 12 football season.⁸⁷ But it is also possible to divide the league into two divisions, each with its own separate round-robin competition to determine a divisional winner, so that the two divisional winners compete against each other in the championship match for the title of league champion. Big Ten football, for example, now has two divisions, with the top teams from each division meeting in the conference championship game.⁸⁸

The same is true for round-robin elections. Instead of one round-robin primary for all qualifying candidates, it would be possible to divide the field of candidates into two separate primaries, with the top candidate from

86. Given the two variable components of a hybrid formula, it would also be possible to employ a “five-ten” option (at least five candidates, plus any others meeting the 10% threshold) or a “four-five” option (at least four candidates, plus any other meeting a 5% threshold).

87. See *Big 12 Announces 2021 Football Conference Schedule*, *supra* note 3.

88. 2021 *Big Ten Football Championship Game*, B1G, https://bigten.org/sports/2021/8/3/2021_FCG.aspx? [https://perma.cc/GT3U-E7J5] (last visited Oct. 10, 2021).

each primary—as determined by the standings after the round-robin competition in each primary—advancing to the November general election. In other words, rather than selecting the top two candidates from a single round-robin primary, the two finalists on the November election ballot would be one candidate from each of the separate round-robin primaries.

One might think of these separate primaries as one for each of two political parties, Democrats and Republicans. But these round-robin primaries would not be party-organized, or party-governed, events for the purpose of the party choosing its own nominee. Instead, these two separate round-robin primaries would be different components of the government’s overall electoral process, much like the Big Ten Conference deciding to operate two separate divisions—or Major League Baseball organizing itself into the American and National Leagues.⁸⁹

It does not matter what the government would call its two separate primaries, but for sake of illustration we can call them the “Blue” and “Red” primaries. The government could permit candidates to choose which of the two primaries to petition to enter, with the number of signatures necessary to qualify for each primary calculated separately. In other words, if the same “five-five” formula applies to both the Blue and Red primaries, at least five candidates will qualify for each, with the possibility of more if additional candidates cross the five-percent threshold. Although the choice between either the Blue or Red primary would be entirely the candidate’s, we can imagine candidates sorting themselves so that one primary (presumably the Blue one) would tend to be for candidates on the left side of the conventional spectrum, while the other primary (presumably the Red one) would tend to be for candidates on the right side of the spectrum. Still, this ideological self-sorting among the candidates would not make the primaries party-nomination events. It would just be a way for the government to divide the total field of primary candidates into two more manageably sized divisions, just as Big Ten football divided its growing conference of teams into two more manageably sized divisions.⁹⁰

With candidates divided into Blue and Red primaries in this way, voters also could be permitted to choose which primary to participate in.

89. See GEORGE VECSEY, *BASEBALL: A HISTORY OF AMERICA’S FAVORITE GAME* 51 (2008) (Major League Baseball adopted its two-league structure in 1903.). Because these primaries would not choose a party’s nominee but instead would function solely as a component of the government’s own process for narrowing the field of candidates to two finalists, this system would not run afoul of the First Amendment doctrine articulated in *California Democratic Party v. Jones*, 530 U.S. 567, 567–68 (2000). For a discussion of the separate “winnowing” and “endorsing” functions that primaries can serve, depending on how they are structured and how they relate to a general election, see Foley, *supra* note 81, at 80–88.

90. See *2021 Big Ten Football Championship Game*, *supra* note 88.

Voters could be permitted to cast either a Blue or Red primary ballot, but not both. Likewise, voters could be permitted to sign petitions for candidates seeking to qualify either for the Blue or Red primary, although it would also be possible to let any registered voter sign any candidate's petition, whether it is for the Blue or Red primary. But, again, voters would not be becoming members of a Blue or Red political party by choosing which of the government's two separate primaries they wished to participate in.

The advantage of dividing the primary stage of the electoral process in this way would be to limit the round-robin competition to a smaller number of competitors. Also, with the ideological self-sorting likely to occur, the November general election likely would be a contest between the top left-of-center candidate against the top right-of-center candidate, with the top candidate on each side determined through the round-robin form of competition in the primary. In other words, the top candidate in the Blue primary would be the candidate most majority-preferred among all the left-of-center candidates by all the left-of-center voters, and the top candidate in the Red primary would be the candidate most majority-preferred of all the right-of-center candidates by all the right-of-center voters. Having the November general election be a head-to-head contest between the top left-of-center candidate and the top right-of-center candidate would avoid the situation in which the top two candidates in a single across-the-board primary are both left-of-center or both right-of-center. California's experience with its own "top two" system shows that this kind of one-sided contest in November can occur,⁹¹ and a similar situation could happen elsewhere as a result of a single round-robin primary depending on the preferences that the voters have among the various candidates.

Despite this arguable advantage of having separate Blue and Red round-robin primaries, it seems more prudent in the short run to forego this approach. A single round-robin primary is simpler. As a substitute for either California's current top-two system or Alaska's new top-four-with-IRV system, a single round-robin primary that produces two finalists for the November general election would be much easier to explain to the public. Dividing the process into separate Blue and Red primaries would be more complicated and thus presumably more difficult to explain.

Moreover, given the state of polarization in contemporary American politics, including the dangerously authoritarian extremism ascendant on the right side of the ideological spectrum,⁹² it would be more protective of

91. I discuss this point in more detail elsewhere: Edward B. Foley, *Requiring Majority Winners for Congressional Elections: Harnessing Federalism to Combat Extremism*, 26 LEWIS & CLARK L. REV. (forthcoming 2022) (manuscript at 20–23), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3843029.

92. *See id.* at 13–14, 44–46.

democracy to conduct a single round-robin primary rather than divide candidates into two separate primaries. Depending on the strength of authoritarian-style populists in a particular state, it is easily conceivable that such a candidate could emerge as the most majority-preferred in a round-robin primary for just the right side of the political spectrum. Depending also on the overall political complexion of the state, the winner of a round-robin Red primary—even if that candidate exhibits authoritarian tendencies—might defeat the winner of a round-robin Blue primary in the November general election. Even though holding a single round-robin primary rather than separate Blue and Red primaries risks having a November general election between two right-of-center candidates or two left-of-center candidates (rather than one from each side of the ideological spectrum), that risk seems less problematic than the risk of an authoritarian takeover of American government, at least at this moment in history. It is deeply unfortunate that it is necessary to make this kind of risk assessment, but preservation of democracy itself needs to be the highest priority right now, and a single round-robin primary is more likely to achieve that goal than dividing the field of candidates into two separate round-robin primaries.

CONCLUSION

With so much attention currently devoted to the need for electoral reform, and especially the focus on ranked-choice voting, it is important to consider the possibility of round-robin voting. As an alternative form of ranked-choice voting, it is able to achieve results more consistent with the overall majority preferences of voters than the more typical IRV version of ranked-choice voting. Especially when employed for the primary election in a two-stage system for the purpose of identifying the two candidates most deserving to compete on the November general election ballot, round-robin voting is the electoral method most conducive to achieving majority rule in a democracy.

The connection between round-robin elections and majority rule has long been known to political theorists. But prior to the development of contemporary computer technology, as a practical matter it has been exceedingly difficult to implement the mathematical calculations associated with round-robin voting. Not only is it necessary to use ranked-choice ballots to simplify the identification of each voter's preferences among a field of candidates, but it is also necessary to employ software that can construct each of the one-on-one matchups that form the round-robin competition based on the voter preferences identified in the ranked-choice ballots. And from the results of these one-on-one matchups, the software must then be able to calculate the round-robin standings among the competing candidates.

Now that the operation of round-robin voting is technologically feasible, its use should be considered as the best way to return American democracy to the fundamental principle of majority rule. Although American democracy was founded upon this fundamental principle, in the nineteenth century majority rule was largely abandoned in favor of plurality-winner general elections, with partisan primaries selecting candidates for the general-election ballot.⁹³ This system distorts the electorate's preferences, leading to outcomes sharply divergent from what the majority of voters actually prefer, as is increasingly recognized.⁹⁴

In seeking the restoration of majority rule, Americans should not overlook the electoral method most tailored to achieving it. Especially when considering the adoption of IRV, Americans should ask themselves whether they would be better served by Tournament Elections with Round-Robin Primaries, or TERRP. For example, Alaska's new IRV-based system would have voters use ranked-choice ballots to identify their preferences among four candidates. But the mathematical calculation that IRV makes to identify a winner from these four candidates has the potential to identify a winner inconsistent with the preferences of the majority of voters as determined by a round-robin competition among those candidates. Because IRV misses the extent to which candidates are disfavored, as well as favored, by voters, IRV can crown a champion who is especially opposed by a majority of the electorate. In an era of political extremism, when some candidates are vehemently opposed by a majority of voters precisely because those candidates exhibit authoritarian tendencies that are a threat to democracy itself, it is dangerous to employ an electoral system that overlooks the extent to which candidates are disfavored as well as favored by voters. Round-robin voting, unlike IRV, does not present this danger.

Round-robin voting, moreover, is no more difficult for voters to understand than IRV. Round-robin voting can use the identical ranked-choice ballots that IRV employs. Moreover, the idea of a round-robin competition is familiar to most Americans from their experience with sports. The method of determining the standings among candidates in round-robin voting is essentially the same as the method of determining the standing of competitors in a round-robin sports tournament. The idea of ordering competitors in terms of their win-loss record from a series of round-robin matches is second nature to any American familiar with college football or World Cup soccer—and that means most Americans.⁹⁵

93. EDWARD B. FOLEY, PRESIDENTIAL ELECTIONS AND MAJORITY RULE: THE RISE, DEMISE, AND POTENTIAL RESTORATION OF THE JEFFERSONIAN ELECTORAL COLLEGE 14–15, 61–62 (2020).

94. *Id.* at 116–18.

95. A majority of Americans, 56%, consider themselves college football fans. See Jeffrey M. Jones, *Pro Football Losing Fans; Other Sports Holding Steady*, GALLUP

Likewise, the idea of using point differentials to break ties among competitors with the same win-loss records is commonplace among Americans who follow various types of sports.⁹⁶

Thus, Americans should look to round-robin voting as a way to remedy what currently ails American democracy. Right now, democracy is most severely threatened by the capacity of candidates to win without actually being the preference of a majority of voters. A round-robin primary, followed by a general election between the top two candidates in the round-robin primary, is the best way to determine which candidate is most preferred by a majority of voters. In this respect, the TERRP electoral system is equivalent to a football season of round-robin competition, followed by a final championship game between the top two teams based on their round-robin records, as the best means for identifying the strongest team in the league. Americans should thus be confident in the capacity of round-robin competition as a component of tournaments to best identify a winner and, accordingly, embrace tournament-style elections with round-robin primaries as the best way to achieve the democratic goal of majority rule.

(Oct. 13, 2017), <https://news.gallup.com/poll/220562/pro-football-losing-fans-sports-holding-steady.aspx> [<https://perma.cc/U45H-ALZR>].

96. Pakaslahti, *supra* note 2, at 355–56.